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54800

A TREATISE

ON THE

VENEREAL DISEASES

OF THE

EYE.

BY WILLIAM LAWRENCE, F.R.S.

LATE PROFESSOR OF ANATOMY AND SURGERY TO THE ROYAL COLLEGE OF SURGEONS IN LONDON; SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, AND LECTURER ON SURGERY AT THAT HOSPITAL; SURGEON TO BRIDEWELL AND BETHLEHEM HOSPITALS; CONSULTING SURGEON TO THE LONDON FEVER HOSPITAL; AND LATE SURGEON TO THE LONDON OPHTHALMIC INFIRMARY.

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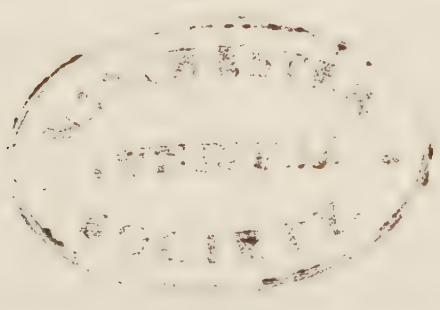
The following account of the nature, symptoms, and treatment of the Venereal Diseases affecting the Eye has been drawn up entirely from my own experience. The cases, on which it is grounded, are published, that the reader may judge whether they authorise my descriptions and conclusions; and they are given circumstantially, as the best means of insuring an impartial representation of the facts. When cases are related in an abridged and general manner, the narrative receives, almost unavoidably, more or less colouring from the opinions of the writer.

W. LAWRENCE.

18, WHITEHALL PLACE,
August 14*th*, 1830.



CONTENTS.

CHAPTER I.

Page

Introductory and historical view of the subject. Division of the diseases of the eye into the gonorrhœal and the syphilitic 1

CHAPTER II.

Acute gonorrhœal inflammation of the conjunctiva . . 10

Symptoms and progress 12

Effects of the inflammation 17

Sloughing of the cornea 18

Suppuration 20

Ulceration 21

Interstitial deposition 23

Diagnosis 24

Prognosis 25

Causes 27

Treatment 35

Bleeding and other antiphlogistic means . . ib.

Page

Blisters 39
Local applications . . . . . ib.
Tonics and astringents 40
Employment of astringents in the beginning . . 42
Incision and excision of the chemosis . . . 46
Mercury 47
Means of restoring the urethral discharge when suppressed 48

CHAPTER III.

Mild gonorrhœal inflammation of the conjunctiva . . 51

CHAPTER IV.

Gonorrhœal inflammation of the external tunics and iris . 53

CASES OF GONORRHŒAL OPHTHALMIA . 61

CASE I.—*Gonorrhœal ophthalmia, with sloughing of the cornea and staphyloma racemosum* . . . . . ib.
CASE II.—*Acute gonorrhœal ophthalmia with sloughing of the cornea* 66
CASE III.—*Acute gonorrhœal ophthalmia of both eyes with sloughing of the right cornea, and recovery of the left eye* 67
CASE IV.—*Acute gonorrhœal ophthalmia of both eyes; with disorganization (general suppuration?) of the corneæ, and total blindness* 69
CASE V.—*Acute gonorrhœal ophthalmia, ending in opacity of the entire cornea, and adhesion between it and the upper eyelid* 71
CASE VI.—*Acute gonorrhœal ophthalmia, with suppuration of the cornea; subsequently general adhesion of the iris, and flattening of the front of the eye* 77

Page

CASE VII.—*Gonorrhœa; syphilitic ulceration of the tonsils and skin; acute gonorrhœal inflammation of the right eye, with suppuration of the cornea, and ulceration of the conjunctiva, ending in collapse of the globe* . . . 79

CASE VIII.—*Acute gonorrhœal ophthalmia of both eyes, with partial slough of one cornea, and subsequent partial staphyloma: recovery with impaired vision* . . 85

CASE IX.—*Acute gonorrhœal ophthalmia, with partial slough of the cornea and prolapsus iridis; complete recovery of sight* 90

CASE X.—*Acute gonorrhœal ophthalmia, terminating in leucoma, with extensive anterior adhesion of the iris* . 94

CASE XI.—*Acute gonorrhœal ophthalmia with deep ulcer at the margin of the cornea: complete recovery* . 96

CASE XII.—*Acute gonorrhœal ophthalmia of the left eye; gonorrhœal discharge continuing from the urethra: complete recovery* 97

CASE XIII.—*Gonorrhœa; syphilitic sores, buboes, and eruptions; gonorrhœal ophthalmia of both eyes, with large ulcer and prolapsus iridis; recovery of sight* . . 99

CASE XIV.—*Acute gonorrhœal ophthalmia in a female; recovery of one eye; opacity of the cornea, adhesion of the iris, and loss of sight in the other* 101

CASE XV.—*Gonorrhœa; rheumatic swelling of the joints, acute external inflammation of the eyes, with extensive ulceration of the cornea* 104

CASE XVI.—*Discharge from the urethra, with purulent ophthalmia of both eyes, and severe rheumatic affections, followed by repeated attacks of rheumatic iritis* . . 107

CASE XVI*.—*Gonorrhœa, with mild inflammation of the conjunctiva* 109

CASE XVII.—*Gonorrhœa, affection of the hip, and mild inflammation of the conjunctiva* 111

Page

CASE XVIII.—*Gonorrhœa, with affection of the joints, and mild inflammation of the conjunctiva* . . . 114

CASE XIX.—*Mild gonorrhœal ophthalmia, with affection of the joints; subsequently, acute inflammation of the sclerotica and iris* 115

CASE XX.—*Gonorrhœa, inflammation of the joints, and inflammation of the external tunics and iris of both eyes* . 118

CASE XXI.—*Acute inflammation of the external tunics with gonorrhœa* 120

CASE XXII.—*Inflammation of the external tunics and iris of both eyes, with inflammation of the synovial membrane of the knee, and discharge from the urethra* . . 123

CASE XXIII.—*Gonorrhœa; rheumatism, affecting the back and limbs; gonorrhœal inflammation of the external tunics of the eyes* 124

CASE XXIV.—*Gonorrhœa followed by inflammation of the sclerotica and iris, and rheumatism* . . . 127

CHAPTER V.

SYPHILITIC DISEASES OF THE EYE . . 130

Syphilitic iritis; iritis syphilitica, BEER, . . . ib.

General character of iritis 131

Change of colour in the iris 132

Effusion of lymph;—its various appearances . . . 133

Motions of the iris and state of the pupil . . . 141

Increased redness of the eye 142

State of the cornea and aqueus humor . . . 144

Intolerance of light and pain 145

General symptoms 148

Progress and extension of the inflammation . . . ib.

Acute and chronic iritis 150

Page

Effects of iritis 153
Adhesions of the pupil . . . . . ib.
Change of texture and colour in the iris . . . 155
Adventitious membrane in the pupil 156
Closure of the pupil 157
Atrophy of the globe, and fluidity of the vitreus humor . 158
Impaired vision . . . . . ib.
Diagnosis 160
Causes 162
Other concomitant syphilitic diseases 163
Syphilitic iritis in infants . . . . . ib.
Whether iritis is caused by the use of mercury . . 165
Prognosis 166
Treatment 169
Antiphlogistic means, particularly loss of blood . . ib.
Local applications—blisters 171
Mercury . . . . . ib.
Mode of employing the remedy 173
Effects of mercury compared with those of the common antiphlogistic treatment 175
Use of mercury after the inflammatory symptoms have ceased 181
Local employment of mercury 182
Artificial dilatation of the pupil 183
Applications employed for that purpose . . . 185
Effect of these applications 189
Use of belladonna in iritis 192
Mode of operation of mercury in iritis . . . 193
Use of turpentine in iritis 203

Page

Cases of syphilitic iritis . . 208

Case I.—*Acute syphilitic iritis with papular eruption; extensive and repeated effusions of lymph on the surface of the iris: termination in atrophy of the globe* . . . 208

Case II.—*Iritis of both eyes, and closure of the left pupil by an adventitious membrane, with ulceration of the throat and tuberculo-scaly eruption; no mercury having been used previously to the appearance of these symptoms: subsequently, nodes of both tibiæ, and swelling of the great toe, with effusion of lymph behind the iris, and diminution of the globe in its anterior portion* . . . 216

Case III.—*Syphilitic iritis of both eyes; acute in the left, chronic in the right; terminating in atrophy of the left globe* 223

Case IV.—*Pupils contracted, adherent, and occupied by adventitious membranes, in consequence of syphilitic iritis; with pustular syphilitic eruption: no previous use of mercury* 228

Case V.—*Syphilitic iritis of the right eye, with ulceration of the external organs, and tuberculo-scaly eruption: no mercury employed before the eye became inflamed* . . 232

Case VI.—*Syphilitic iritis treated without mercury, and terminating in contraction and adhesion of the pupil, with dimness of sight* 235

Case VII.—*Syphilitic iritis of the left eye, without any other constitutional symptom* 237

Case VIII.—*Syphilitic iritis of the left eye, without any other symptom of the disease* 239

Case IX.—*Syphilitic iritis, without any other secondary symptoms* 241

Page

CASE X.—*Syphilitic iritis, unaccompanied by other constitutional symptoms, yielding speedily to the antiphlogistic treatment, followed by the moderate use of mercury* . 242

CASE XI.—*Syphilitic iritis of both eyes; mercury not taken before the eyes were affected: one eye cured by antiphlogistic treatment: the employment of mercury necessary for the other* 245

CASE XII.—*Syphilitic iritis of both eyes, with primary sore and bubo, and papular eruption: no previous use of mercury* 248

CASE XIII.—*Syphilitic iritis of the left eye, not preceded by the use of mercury* 251

CASE XIV.—*Acute syphilitic iritis, with scaly eruption* . 256

CASE XV.—*Syphilitic iritis occurring during the use of mercury, and affecting both eyes in succession: very acute in the left eye. Repeated relapses* . . . 259

CASE XV*.—*Syphilitic iritis of both eyes, acute in the left, chronic in the right; scaly syphilitic eruption. No mercury used for the primary affection* . . . 270

CASE XVI.—*Syphilitic iritis with scaly eruption* . . 274

CASE XVII.—*Syphilitic iritis with scaly eruption and ulceration of the fauces* 277

CASE XVIII.—*Syphilitic iritis of both eyes, with tuberculo-scaly eruption over the whole body, and ulceration of the tonsil: frequent relapses of inflammation* . 278

CASE XIX.—*Acute syphilitic iritis of both eyes; with papular eruption, and superficial ulceration of the tonsils* . . 283

CASE XX.—*Acute syphilitic iritis affecting both eyes in succession, with indurated sore on the prepuce, and papular eruption* 286

CASE XXI.—*Syphilitic iritis with papular eruption* . . 290

CASE XXII.—*Syphilitic iritis with papular eruption* . . 291

Page

Case XXIII.—*Syphilitic iritis following papular eruption; not yielding to antiphlogistic treatment, but disappearing quickly under the use of mercury* 293

Case XXIV.—*Acute syphilitic iritis, with scaly eruption; adhesions of the pupil disappearing under the use of mercury and belladonna* 295

Case XXV.—*Syphilitic iritis, with adhesions of the pupil, which were destroyed by the use of mercury and belladonna* 297

Case XXVI.—*Syphilitic iritis with ulceration of the fauces, and inflammation of the periosteum of the tibiæ. Adhesions of the pupil absorbed under the use of mercury and belladonna* 299

Case XXVII.—*Syphilitic iritis, treated ineffectually on the antiphlogistic plan, and immediately arrested by the use of mercury* 301

Case XXVIII.—*Syphilitic iritis of both eyes, arrested by antiphlogistic treatment and mercury; relapse of the complaint cured by antiphlogistic means alone* . . 302

Case XXIX—*Syphilitic iritis, with other syphilitic affections, in an infant* 305

CHAPTER VI.

Syphilitic ulceration of the eyelids 308

Syphilitic eruptions of the palpebræ . . . . ib.

Syphilitic ulceration of the eyelids 310

Cases of syphilitic ulceration of the eyelids . 318

Case I.—*Indurated sore of the prepuce, with phymosis; scaly eruption; large ulcer of the upper eyelid* . . ib.

Page

Case II.—*Syphilitic ulceration of the external canthus, and subsequently of the lower eyelid, with other syphilitic symptoms* 323

Case III.—*Ulcer of the forehead, with exposure of the os frontis; ulceration of the left lower eyelid, pharynx and lip; scaly eruption of the face* 328

Case IV.—*Phagedenic ulcer of the upper eyelid, without any other syphilitic symptoms, cured by the free use of mercury* 331

Case V.—*Ulceration of the eyelids, and other syphilitic affections in two children* 332

A TREATISE,

&c. &c.

CHAPTER I.

Introductory and Historical View of the Subject.—Division of the Venereal Diseases of the Eye into the Gonorrhœal and the Syphilitic.

When we consider that the eye, with its appendages, is subject to a greater variety of diseases than any other organ; that the numerous dissimilar, and, for the greater part, highly organized structures, which enter into its composition, are not only liable to common disease, with all its various results, but also exhibit peculiar modifications of morbid affection in scrofulous, gouty, and rheumatic constitutions; that it is involved in many diseases of the skin, and that it is liable to cancer, fungus hœmatodes, and melanosis, we should expect to find that it would suffer in venereal disease. We observe accordingly that, both in gonorrhœa and syphilis, it is exposed to various

affections depending immediately and obviously on those morbid poisons.

The venereal diseases of the eye have been mentioned by many writers; but, for the most part, in such general terms as to convey no clear information respecting the circumstances under which they arise, their characteristic appearances, their progress, effects, or treatment. Hence, although one of these affections, namely, acute gonorrhœal inflammation of the conjunctiva, is of the most violent and rapidly destructive kind; and another, syphilitic iritis, produces, more or less speedily, changes of structure which injure or destroy sight, they have entirely escaped the notice of some modern writers in this country, who have been regarded as the principal authorities on the venereal disease.

Gonorrhœal ophthalmia is shortly noticed by St. Yves,* and described with tolerable accuracy by Astruc,† under the denomination of Ophthalmia Gonorrhoica. It is the principal subject in the disputation of Camerer, *de ophthalmia venereâ et peculiari in illa operatione*,‡ and it is mentioned by Swe-

* *Traité des Maladies des Yeux;* Paris, 1702. Part II. chap. iv. art. 10; and chap. vi. art. 10.

† *De Morbis Venereis;* lib. iii. cap. 3.

‡ Haller; *Disp. ad Morbor. Histor.* t. i. art. 19. Also in the *Disp. Med. select. Tubingens.* vol. 3.

DIAUR,* BENJAMIN BELL,† and RICHTER.‡ The leading symptoms and the dangerous nature of the affection were known to these writers; but although they were aware that the eyes often suffered in constitutional syphilis, their remarks on that subject are quite vague, and show that they had no accurate knowledge of the nature or treatment of the affection.§

Inflammation of the iris was, I believe, first described by JOHN ADAM SCHMIDT, Professor at the Josephine Academy in Vienna, who designated it by the term Iritis. His essay "on Secondary Cataract, and on Iritis following Cataract-operations,"‖ published in 1801, contains an excellent description, which has not yet been surpassed, of inflammation of the iris, and of its various results. To some of these, he acknowledges that his attention had been directed by his teacher and friend, Professor BARTH,¶ whose name ought not to be mentioned without the tribute of our respect and gratitude for his services to the profession, in founding

* *Practical Observations on Venereal Complaints;* chap. xvi.

† *Treatise on Gonorrhœa Virulenta and Lues Venerea,* v. 1. ch. i.

‡ *Anfangs-gründe der Wundarzneykunst;* v. 3. § 57.

§ See ASTRUC, lib. iv. cap. ii. § 7; SWEDIAUR, ch. xvi.; B. BELL, vol. ii. ch. iv. § 2; RICHTER, § 54-56.

‖ *Ueber Nachstaar, und Iritis nach Staar—Operationen,* 4to.

¶ Page 62, of the work last quoted; note.

the celebrated school of ophthalmic surgery at Vienna, and bringing it to so high a degree of excellence. It appears incidentally in this work, that SCHMIDT was acquainted with the syphilitic and other forms of iritis, although he has spoken of the affection generally, and more especially for the purpose of illustrating some of the consequences which occasionally follow operations for cataract. Inflammation of the iris is not mentioned in the third volume of RICHTER's *Elements of Surgery*, which was published in 1795, and treats of diseases of the eye; it is not alluded to in the first edition of BEER's work* on Diseases of the Eye, which appeared in 1792. In his second and enlarged edition,† which is quite a different book from the first, BEER has treated the subject at considerable length; and the Germans in general have been well acquainted with iritis and its varieties since the appearance of SCHMIDT's Essay already quoted, and through the practical lessons afforded in the admirable ophthalmic school of Vienna.

* *Lehre der Augenkrankheiten*, Vienna, 2 vols. 8vo. 1792. The observations on venereal inflammations of the eye in this Work are quite unworthy of the celebrity which BEER afterwards acquired in this department of surgery; they are either vague and unsatisfactory, or erroneous. See vol. i. sect. 425—437.

† The two volumes of the second edition were published separately, in 1813 and 1817.

Mr. Hunter and Mr. John Pearson, whom we have been accustomed to regard as the persons best acquainted with the venereal disease, and the latter of whom combined profound learning with great experience, seem hardly to have known that the eyes were subject to any affections of a venereal character. The former writer does not mention gonorrhœal ophthalmia in his treatise on the venereal disease; and he alludes to what he calls *supposed* venereal inflammation of the eyes, merely for the purpose of expressing his doubts whether such cases exist. "There are," says he, "inflammations of the eyes which are supposed to be venereal; for after the usual remedies against inflammation have been tried in vain, mercury has been given on the supposition of the case being venereal, and sometimes with success, which has tended to establish this opinion. But if such cases are venereal, the disease is very different from what it is when attacking other parts, from the constitution, for the inflammation is more painful than in venereal inflammation proceeding from the constitution; and I have never seen such cases attended with ulceration, as in the mouth, throat, and tongue, which makes me doubt much their being venereal."*

* *Treatise on the Venereal Disease*, p. 324.—In a case related at p. 310 and 311 of the same Work, it is mentioned that "the left

That Mr. Pearson knew nothing, either of the gonorrhœal or syphilitic affections of the eye, appears from a letter of his addressed to Mr. Briggs, the learned translator of Scarpa's treatise on Diseases of the Eyes, and published in the second edition of that work.* "I cannot help," he says, "entertaining some doubts of the propriety of assigning the gonorrhœa as a cause of ophthalmia; since, during a pretty extensive experience of twenty-five years, I have never seen one single instance of an inflammation of the eyes, which was evidently derived from a gonorrhœa." Again, "It is not only asserted that those who are infected with a gonorrhœa, may be attacked with a violent ophthalmia, but that the gonorrhœa is somehow or other the cause of that ophthalmia. It is with reference to the latter proposition, that I express my doubts, which are founded upon the fact mentioned before, that, of the many thousand cases of gonorrhœa which have fallen under my notice, I never could in any one instance, trace such a connexion between the eye and the urethra, as that to which Professor Scarpa alludes." In the following observations, Mr. Pearson denies that inflammations

eye inflamed" at the same time that other secondary symptoms occurred; and that the complaint in the eye, with the other symptoms, went away under the use of mercury.

* Page 164-166, note.

of the eyes occurring in syphilis, have any peculiar character. We may suppose that he considered their occurrence in syphilitic patients, merely a casual coincidence. "In that form of the secondary symptoms of syphilis, where the skin is the part chiefly affected, a disease resembling the ophthalmia tarsi sometimes appears. It is not commonly attended with much redness of the tunica conjunctiva, nor is the sensibility to light remarkably increased; yet, I have seen it, in a few instances, in the form of an acute ophthalmia, resisting all the common modes of treatment, but yielding immediately to a course of mercury."

"The venereal ophthalmia resembles, in its appearance, those diseases of the tarsi and tunica conjunctiva, which are derived from scrofula; and, I believe, there are no specific characters by which diseases of the eye, or eyelids, produced by the action of the venereal virus, can be distinguished from those which are excited by other causes."

As Mr. Pearson had failed to recognise syphilitic iritis, which must have occurred frequently in patients under his care, we cannot be surprised that he had not noticed the more rare affection of gonorrhœal ophthalmia.

It could hardly have been believed that morbid affections of so serious a nature, possessing charac-

ters so strongly marked, and not of infrequent occurrence, should have been thus completely overlooked by two observers of distinguished talent and industry, who had been employed for many years in investigating the venereal disease. We must recollect, however, that the study of ophthalmic surgery had been entirely neglected in this country until within the last few years; and that the custom had hence arisen for persons labouring under diseases of the eye to resort to a distinct class of practitioners, whose study and practice did not embrace diseases generally; and even for surgeons, conscious of their ignorance, to send their patients to such practitioners, when they became affected with diseases of the eye.

Our more recent and principally living writers have not shewn themselves inattentive to, or ignorant of this subject. None of them, however, whether treating of syphilis or ophthalmic disease, have considered venereal affections of the eye professedly or generally. I have therefore thought that the attention of surgeons might be usefully directed to a class of disorders, of which the pathology is interesting, and the treatment highly important. Accordingly, I have described them in the following pages from my own experience, and have illustrated the descriptions by a selection of cases, calculated

to exhibit the origin, progress, various forms, effects, and treatment of the diseases, as well as their connexion with the other symptoms, and their dependence on the general affections.

The venereal diseases of the eye come naturally under the twofold division of the GONORRHŒAL and the SYPHILITIC.

CHAPTER II.

Acute Gonorrhœal Inflammation of the Conjunctiva.

THREE distinct forms of ophthalmic inflammation occur in conjunction with, or dependence on gonorrhœa; namely, 1st. *Acute inflammation of the conjunctiva;*—2nd. *Mild inflammation of that membrane;*—*and* 3rd. *Inflammation of the sclerotic coat*, sometimes extending to the iris.

I. *Acute gonorrhœal inflammation of the conjunctiva; gonorrhœal ophthalmia; blepharophthalmia*, and *ophthalmia gonorrhoica vera* of BEER.

The name of this affection sufficiently indicates its nature. It is a violent inflammation of the mucous membrane of the eye-ball and lids, attended with a profuse discharge of fluid, closely resembling in all its sensible characters that, which issues from

the inflamed urethra in gonorrhœa, and occurring in some kind of connexion with that complaint. It is the most violent and rapidly destructive inflammation, to which the eye is subject; and, fortunately, it is one of the most rare. It sometimes destroys the eye within a very short time; and the organ is often irreparably injured before the patient seeks for surgical relief, especially when the affection occurs in the lower classes.

Purulent ophthalmia, in its various forms, commences in, and is at first confined to the mucous membrane of the eye. It soon extends to the cornea, which it either disorganizes, or changes in structure so considerably, as frequently to destroy or seriously injure sight. The whole texture of the inflamed conjunctiva swells; its blood-vessels are distended to the highest degree, and the membrane becomes of an intense bright red. The texture of the mucous surface is loosened and softened—it becomes pulpy and granular; in short, very much like the secreting surface of some parts of the alimentary canal; and, in this altered state, it pours forth the puriform discharge, which is not produced by suppuration, but is merely the ordinary mucous exhalation, altered in its qualities, and increased in quantity by the inflammation of the membrane. Indeed, purulent ophthalmia does not in general

produce suppuration: the changes, which it more commonly causes in the cornea, are sloughing, ulceration, and interstitial deposition ending in opacity.

Symptoms and Progress of acute Gonorrhœal Ophthalmia.

This affection presents all the characters of purulent inflammation of the conjunctiva in their fullest development. There is the greatest degree of vascular congestion, the most intense and general external redness; excessive tumefaction of the conjunctiva; great chemosis, with corresponding swelling of the palpebræ; and profuse yellow discharge. In the first stage of the disease, which is short, the inflammation is confined to the conjunctiva, and is attended with soreness and stiffness, with the sensation of sand or dirt in the eye, and with more or less uneasiness on exposure to light or using the organ. The affection soon extends to the cornea with severe and agonizing pain in the globe, orbit, and head, augmented to intolerable suffering on exposure to light, and with febrile disturbance of the system of inflammatory character. The danger to the organ is now most serious and imminent; indeed, when the disease has thus advanced from

the mucous membrane to the globe itself, we can hardly expect by any kind of treatment, to avert entirely its destructive consequences. The violent inflammation, which causes the yellow puriform discharge from the mucous surface of the conjunctiva, produces effusion into the cellular texture connecting it to the surrounding parts. Hence the general swelling of the membrane, and that more considerable tumefaction on the front of the sclerotica, round the cornea, which is called chemosis. The latter is often so considerable, that the swelled conjunctiva overlaps the cornea all round, so as nearly to hide it. Similar effusion takes place into the cellular texture of the eye-lids, enlarging them considerably, more particularly the upper, which hangs over and sometimes completely covers the lower. This palpebral swelling is sometimes œdematous, with the integuments but little redder than natural; in other instances it is firmer, with the skin, particularly of the upper eye-lid, bright red. The latter state denotes more active inflammation, and greater danger to the organ. The chemosis, and the swelling of the lids, make it often difficult, and sometimes impossible to get a clear view of the cornea. Although it is desirable to do this, in reference to prognosis, when we first see the case, we should not persist in our efforts at the risk of

augmenting the inflammation, or the patient's sufferings. The œdema of the eye-lids declines in the progress of the affection, and then one or both of them may become everted, the convex edge of the tarsal cartilage being pushed forwards by the swoln conjunctiva.

The chemosis and the tumefaction of the eye-lids are analogous in their nature and mode of production to that swelling which takes place in the neighbourhood of any active inflammation. That the former should have been referred heretofore * to the deposition of venereal matter in the cells of the part, and that incisions should have been recommended for its evacuation, will not surprise us; but we could hardly have expected to find such a mode of accounting for the phenomenon adopted by Beer and Richter. The swelling of chemosis, according to the former, arises from the effusion of gonorrhœal matter under the conjunctiva; he mentions the practice of making incisions for the discharge of this matter, and represents that from such incisions there flows out a purulent fluid, or a yellowish acrimonious ichor. He says that gonorrhœal matter is sometimes seen at the very be-

* Astruc; Lib. III. cap. 3. Camerer, *Dissert. de Ophthalmia Venereâ.*

ginning in the chambers.* "Sometimes," says RICHTER,† "the conjunctiva swells up round the cornea, as in chemosis; this swelling depends entirely on an effusion of true gonorrhœal matter into the cellular texture and the conjunctiva, and the matter flows out on making incisions through that membrane. Sometimes gonorrhœal matter is found in the anterior chamber."

The inflamed membrane exhales at first a thin whitish mucus in small quantity; as the inflammation proceeds to its full development, the discharge becomes thicker, yellow, and abundant; the yellow tint and the quantity of the exhalation being in proportion to the violence of the inflammation. When the latter is at its height, the discharge closely resembles in its appearance, and in the stain communicated to linen, that which proceeds from the urethra in venereal gonorrhœa.

Although the pain is generally most severe, both in the eye and in the head, as in other instances where the dense and unyielding texture of the cornea is the seat of inflammation, and although patients often complain of burning pain, of tension as if the eye would burst, of deep seated and in-

* *Lehre der Augen-krankheiten;* 1st edition, v. 1. p. 294-5.

† *Anfangs-gründe;* v. 3, p. 63.

tense agony, with extension of these distressing and almost intolerable sensations to the brow, forehead, and head generally, there are some instances in which little or no pain is experienced, as in Cases II. and X.

The symptoms of acute gonorrhœal ophthalmia are not equally violent through the whole course of the affection: it begins with swelling and increased redness of the conjunctiva, and some pain in the organ; then the puriform discharge takes place, with increased uneasiness; and, lastly, the inflammation extends to the cornea, with great aggravation of suffering. Thus the course of the affection may be divided into three stages, of which the limits cannot be marked very accurately. In the first, there is vascular distension and swelling of the membrane, with swelling of the lids; the commencement of the second is marked by the occurrence of the puriform discharge, and that of the third by extension of the inflammation to the cornea. The duration of each of these varies in different instances according to the constitution and state of health of the individual, and perhaps still more according to the nature of the treatment adopted. This variety however is observed less in the first and second than in the third stage; the two former, and more particularly the first, usually

passing off very rapidly. In Case V. the second stage may be said to have begun in twenty-four hours from the first perception of uneasiness: the lids were red and swoln at that time, and there was thin puriform discharge. In thirty-six hours the swelling was so great, that the eye could not be seen, and there was profuse yellow discharge, while severe pain of the eye and head denoted clearly extension of the disease to the cornea. In Case I. the first stage occupied about thirty-six hours, and the second between three and four days. In Case VIII. pain and weakness were first felt in the eye on the 1st of November, and on the 6th I found that the cornea had sloughed.

Effects of the Inflammation.

The immediate effects of the inflammation on the cornea are sloughing, suppuration, ulceration, and interstitial deposition; while the consequences to which these changes lead more remotely, are, escape of the humours and collapse of the globe, obliteration of the anterior chamber and flattening of the front of the eye, staphyloma, prolapsus iridis, obliteration of the pupil, corneal opacity, and anterior adhesion of the iris.

The eye is sometimes said to *burst*; a paroxysm

of excruciating pain is suddenly terminated by a sensation of something giving way; a little fluid runs down the cheek, and great relief is experienced. It is found that, in consequence of the changes of the cornea just mentioned, the anterior chamber is penetrated.

The cornea becomes dull and hazy before it sloughs, or indeed before undergoing any of the changes just enumerated. Its tranparency and polish are completely destroyed, when it has sloughed; and it is converted into a dirty yellowish or brownish opake substance, which is immediately recognized as deprived of life. At first it looks like a portion of wetted leather; it is soon separated from the living parts, when it has a loose, soft, and ragged appearance. As the lens and capsule, which are exposed by this separation are transparent, the patient sometimes recovers, for a short period, tolerably good vision. After the slough is detached, the chambers of the aqueous humour may be exposed by ulceration; the humours will then escape, the emptied coats will collapse, and the globe remains permanently shrunk in the socket. More commonly, although the whole cornea seems to slough, the entire thickness does not separate, and the anterior chamber is not exposed. The interior layer of the cornea, or the

membrane of the aqueous humour, is left, and is soon pushed forwards by the iris, which forms an irregular, brownish, and dirty-looking protuberance in the front of the eye. As the inflammation declines, this protuberance recedes, until it disappears altogether, the front of the eye remaining flattened, and being formed by the iris, covered by a thin, smooth, and more or less opake pellicle, through which the fibres of the iris may be partially seen, giving it a somewhat streaked appearance. See Cases II. and III. Sometimes the iris is permanently protruded, and forms a dark, more or less smooth protuberance, partially subdivided on the surface, (*Staphyloma racemosum.*) See Case I.

The separation of the slough, when it has been partial, leaves an ulcerated surface, which is soon raised into a vesicular protuberance, consisting of the membrane of the aqueous humour, with the iris, which has become adherent during the previous inflammation of the cornea (*prolapsus iridis.*) This shrinks as the inflammation declines, and the regular figure of the cornea is restored; but the iris remains adherent, and is covered only by a thin pellicle, which is partially opake, while the boundary of the adhesion presents a deeper opacity in the cicatrix of the corneal laminæ. This process is exemplified in Cases VIII. and IX. If a

considerable portion, such as one half or one third of the cornea, should have perished, a permanent tumour is sometimes formed in the front of the eye, consisting externally of the opake cornea, and internally of the adherent iris; its cavity, which is an extension of the anterior chamber, being filled with aqueous humour: this is termed partial staphyloma, and differs from prolapsus iridis, or complete staphyloma, only in size. I have seen it occur in both eyes of the same individual, with but little injury to sight, as the protrusion of the iris hardly interfered with the pupil.

Suppuration of the cornea may be general or partial: it is usually the former. The cornea first becomes white, and then assumes a yellow colour. The effused substance is not a fluid, nor is it collected into a cavity; it is a thick viscid matter deposited in the texture of the cornea. Ulceration takes place, and exposes an opake yellow substance, which looks like ordinary matter, but it cannot be wiped off. The ulcerative process extends until this is removed. If the whole cornea should be destroyed, the humours may escape, and the globe will shrink. Or, the humours may remain, and the tumid conjunctiva scleroticæ contract from the circumference towards the centre of the space left vacant by the cornea, until it completely fills that

space, when the eye appears like a red fleshy mass, in which even the original situation of the cornea cannot be distinguished.* The ulceration of the suppurated cornea may penetrate the anterior chamber at different parts, at each of which the iris may protrude, the front of the organ remaining ultimately flattened.†

When ulceration takes place without previous suppuration, it generally attacks the margin of the cornea, and extends rapidly through the laminæ, so as to form a deep trench, seldom occupying less than one-third, often one-half or two-thirds of the circumference, and sometimes extending round the whole circle.‡ In the latter case, the portion insulated by the ulcerative process sloughs.§ On the sides of this ulcerated trench, the laminæ of the cornea may be often seen very distinctly. BEER says that they turn up like the leaves of a book, which has been much read. If the ulceration should not occupy more than two-thirds of the margin, the vascular supply of the cornea will still be carried on, and the mischief may be repaired.‖

* See CASES IV. and VII.
† See CASE VI.
‡ See CASES I., VIII., XI., and XIII.
§ See CASE I.
‖ See CASES XI. and XIII.

As the margin of the cornea is covered by the swollen conjunctiva, these ulcers are at first concealed from view, and we do not know of their existence until the chemosis begins to subside. When the ulcer has gone through the corneal laminæ, the membrane of the aqueous humour may rise as a transparent vesicle in the cavity; or it may be pushed forwards by a protruding portion of the iris. The ulcerative process may penetrate the anterior chamber, when the iris will either fall against the opening, or be pushed into it and block it up. If the ulcer, whether it should have arisen from the separation of a slough, or have occurred in the manner just described, should be spreading, the inflammation remaining unchecked, its surface is whitish, and ragged, or flocculent; or of a dirty yellowish cast, with surrounding haziness. When the inflammation subsides, it becomes transparent. The commencement of the restorative process is marked by the surface of the excavation assuming a light greyish tint, with a jelly-like appearance. A soft semi-opake substance slowly fills up the breach, when the surface becomes smooth, and the regular figure of the cornea is restored. No secretion of pus is observed, either during the stage of ulcera-

tion or that of reparation; the latter process is slow, several days often elapsing without any sensible change in the size or appearance of the ulcer. The same process of contraction takes place here, as after the cicatrization of other ulcers, so that the size of the opaque cicatrix is much less than that of the previous corneal ulcer; and as these ulcerations take place on the circumference of the part, one that has been of considerable size leaves a mark that is only observable on close inspection, while, where the ulceration has extended over the edge of the pupil, the cicatrix may leave that aperture quite unobstructed.

The existence of the ulcer makes no difference in the kind or degree of pain during the active period of the disease: no pain is felt when the inflammation is stopped, although a large ulcer may still exist.

When interstitial deposition takes place, the corneal laminæ are the seat of the mischief; and the opacity thus produced is of the dense kind called *leucoma* or *albugo*. It is usually accompanied with anterior adhesion of the iris *(synechia anterior)*.

Contraction or obliteration of the pupil may occur in consequence of protrusion of the iris in

partial staphyloma, or at the smaller apertures produced by ulceration; or of its adhesion to a leucomatous portion of the cornea.

When the cornea has been weakened by extensive sloughing or ulceration, the iris having previously become adherent to it during the active period of the inflammation, the conditions necessary to the formation of total staphyloma exist; and this accordingly is one of the ultimate consequences of gonorrhœal ophthalmia.

Diagnosis.—The local symptoms are not sufficient to establish a distinction between this affection and common purulent inflammation of the most violent kind, and its peculiar nature is indicated by the concomitant circumstances, that is, by the preceding or existing gonorrhœa. In general it attacks only one eye, while purulent ophthalmia affects both. Dr. Vetch,* speaking of the latter, says, "there is not one case in a thousand in which one eye only becomes affected." Ordinary purulent ophthalmia may, however, be confined to one eye, while the gonorrhœal form of the disease often attacks the second eye, after a short interval.

* *Practical Treatise on Diseases of the Eye*, p. 195.

One eye only was affected in nine out of the fourteen cases which I have recorded.

In common purulent ophthalmia the mucous lining of the palpebræ is first affected, and the disease extends to the mucous covering of the globe. In Case V., where the complaint was seen at its outset, it began at once in the conjunctiva oculi. It is further characterized by the violence of its symptoms, the rapidity of its progress, and the short time in which it produces destructive effects. At least the few scattered cases of purulent ophthalmia met with in civil life are much less alarming in these respects.

Prognosis.—The violence of the inflammation, its rapid course, and the disorganization or changes of structure, which it so speedily produces in the cornea, are attended, under all circumstances, with the greatest danger to sight, which, in a large proportion of these cases, is either lost or seriously injured. Thus of the fourteen cases which I have related, loss of vision took place in nine from sloughing, suppuration, or opacity of the cornea. In two of these one eye was lost, and the other recovered. Sight was restored in the other five, with partial opacity of the cornea, and anterior adhesion

of the iris in three of the number. So short a period intervenes between the commencement and the full development of the complaint, that in many instances irreparable mischief is done to the eye before our assistance is required. If we see the complaint in the first or second stage we may expect to arrest its progress by active treatment; but success does not invariably attend our efforts even under such favourable circumstances, as CASE V. proves. Our prognosis will principally turn on the state of the cornea; if that should possess its natural clearness the eye may be saved. If it should become hazy and dull, and more particularly if it should have assumed a white nebulous appearance, consequences more or less serious will inevitably ensue. Great swelling of the conjunctiva, more particularly great chemosis, profuse discharge of a yellow colour, and bright redness of the swoln upper eyelid, are unfavourable circumstances, as indicating a high degree of inflammation. The changes, to which the cornea is liable, do not always destroy sight: their effect depends on their extent. Sight may be restored after partial sloughing of the cornea; see CASES VIII. and IX.; and extensive ulceration may occur without injury to vision. See CASES XI. and XIII.

The inflammation is not equally violent in all

cases; and, of course, the prognosis will be less serious in proportion to its comparative mildness. Hence, perhaps, the favourable termination of Cases VIII., IX., XII., and XIII. may in part be explained.

When both eyes are attacked in succession, the disease is less severe in the second, which, therefore, is usually saved; see Cases III., VIII., and XIII. Sometimes, however, the inflammation is equally violent and destructive in both, as in Case IV. which ended in total blindness: this is by no means the only instance I have seen of such a melancholy termination.

Causes.—In investigating this part of the subject, we have to inquire what is the nature of the connexion between this inflammation of the eye and gonorrhœa? whether the former can be produced by the application of gonorrhœal matter to the organ? If so, whether an individual can infect himself? whether the application of matter from another source be necessary? or whether the infection may occur in both ways? Whether, on the other hand, gonorrhœal ophthalmia may be an example of that peculiar transference of diseased action, which is called metastasis? To some it may appear necessary to examine a previous ques-

tion; viz. whether there is any connexion at all between the inflammation of the urethra and that of the eye? For Mr. PEARSON, in a letter which I have already quoted,* directly denies the existence of such a connexion, on the ground that, in many thousand cases of gonorrhœa, he had not seen one instance of inflammation of the eye that could be ascribed to the gonorrhœa.

From this statement we can merely infer that Mr. PEARSON had not seen gonorrhœal ophthalmia, which is very strange, when we consider, as he informs us, that many thousand cases of gonorrhœa had fallen under his notice. I may oppose to his negative testimony the positive experience of many competent observers, and the evidence of the facts detailed in this work.

Whether this dangerous ophthalmia can be produced by the application of gonorrhœal matter to the organ, is a more doubtful point, which the nature of the subject prevents us from settling in the only satisfactory way, that is, by direct experiment.

It is stated incidentally by BEER,† and in the

* Page 6.

† "We read of gonorrhœal ophthalmia said to have been produced by infection, that is, by gonorrhœal matter of the same or another individual conveyed to the eye by a cloth or the fingers. I have frequently seen such cases, but they were merely inflammations of the

same kind of way by SCARPA,* that, if gonorrhœal matter be applied to the eye, it excites only a slight degree of inflammation. These statements are not accompanied by any narratives of cases, or other detailed illustrations, so that we do not know on what kind of proof the assertions rest, nor how the application of the morbid secretion to the eye was ascertained.

Since infectious matter does not produce disease in the same individual, although it is capable of affecting others, analogy would lead us to infer that gonorrhœal discharge applied to the eye of the same person would not cause gonorrhœal ophthalmia. This conclusion is supported by the result of some experiments made by Dr. VETCH. He took matter from the eyes of persons labouring under acute purulent ophthalmia, and applied it in each case to the urethra of the same individual: no disease was excited. But, when he applied the

palpebral glands, which yielded to the ordinary means. It is possible, however, that the inflammation of the palpebral glands, thus produced by immediate infection, might pass into purulent inflammation of the eyelids and eye in a weakly person of bad constitution."—*Lehre*, v. i. § 540.

* "The gonorrhœal ophthalmia from inoculation with the virus, in which case no doubt can be entertained that the venereal poison is the cause of the disease in the eyes, has never the same powerful and immediate tendency to destroy the organ of vision, as that which is derived from the gonorrhœal metastasis."—*Treatise on the Principal Diseases of the Eyes;* translated by Mr. BRIGGS. Edit. 2, p. 164.

same matter to the urethra of a different individual, it produced a very virulent gonorrhœa. He infers from these experiments, that gonorrhœal matter taken from the urethra and applied to the eye of the same individual would excite no inflammation of the eye. The inference is probable, but not necessary. Because the purulent secretion of the eye does not affect the urethra we cannot conclude that the gonorrhœal secretion of the urethra will not affect the eye. These morbific influences are not in all instances reciprocal: inflammation of the urethra often causes inflammation of the testicle, but the latter seldom or never produces the first. Dr. Vetch further mentions, that an hospital assistant, named Smith, applied gonorrhœal matter to his own eyes with impunity. When we consider how this matter is diffused over the linen of patients, both male and female, how often the fingers must be smeared with it, and how inattentive to cleanliness the lower classes are, we cannot help concluding that gonorrhœal discharge must be often applied to the eyes of the same individual; yet gonorrhœal ophthalmia is comparatively rare.

Although these various considerations would lead us to expect that gonorrhœal discharge would not affect the eyes of the same individual, we meet

in practice with cases, from which there is every reason to draw the contrary conclusion. It is a well known popular remedy for sore eyes to wash them with one's own urine; and persons labouring under gonorrhœa are sometimes so thoughtless as to resort to this practice. Experience teaches us that this direct application of infectious matter is capable of producing, not such a slight inflammation as BEER and SCARPA speak of, but acute gonorrhœal ophthalmia in its most destructive form. This is fully proved by CASE IV. where both eyes were lost, and CASE XIV., in which the vision of one was destroyed. In CASE VIII., in which partial sloughing of one cornea occurred, the patient had used to his eyes a towel soiled with gonorrhœal discharge from his own urethra. Mr. WARDROP communicated to me two cases, which occurred under his own observation. In one of them, that of a young gentleman labouring under gonorrhœa, who had inadvertently touched his eyes when his fingers were contaminated with the discharge, violent puriform ophthalmia occurred, and ended in the suppuration and collapse of both eye-balls. A soldier, who had gonorrhœa, was advised to bathe his eyes with his own urine, as a remedy for a slight affection of the lids: purulent ophthalmia seized one eye, which suppurated and

and burst. Astruc* saw a case in which both eyes became inflamed from this cause; but the affection does not seem to have been very severe. Another instance is detailed by Mr. Foot;† the ophthalmia, which was of the most acute kind, ended in opacity of the cornea and loss of vision.

Experience clearly proves, what we should have expected a priori, that gonorrhœal ophthalmia may be produced by the application of gonorrhœal matter from another individual. This cannot be a very frequent occurrence for obvious reasons; and I have seen no instance of the kind. Mr. Wardrop has furnished me with two examples. An old lady went into the dressing-room of her son, who had gonorrhœa, and washed her face with a towel which he had been recently making use of. Purulent ophthalmia quickly supervened, and destroyed the eye in a few days. A washerwoman, who had been employed in cleansing foul linen, was seized in a few hours with puriform ophthalmia, which terminated in the suppuration and collapse of both eyeballs. Delpech‡ mentions the instance of a young and healthy woman, who

* Vol. i. p. 295.

† *Treatise on Lues Venerea;* 1820, p. 98.

‡ *Chirurgie Clinique;* t. 1, p. 318.

washed her eyes with goulard water and a sponge, which had been used by a young man affected with gonorrhœa. Violent ophthalmia came on, and quickly terminated in loss of the eye. Mr. BACOT* distinctly traced the origin of the disease to infection, by means of matter from another individual, in three instances, two of which were washer-women.

In a great proportion, however, of these gonorrhœal ophthalmiæ, we cannot trace the disease of the eye to the application of infectious matter, either from the same or another individual. The eyes are said to suffer by metastasis; it is stated that the gonorrhœal discharge is suppressed, and that the inflammation of the eyes occurs in consequence of that suppression. Such is the representation of RICHTER,† SCARPA,‡ and BEER,§ who accordingly consider the restoration of the discharge from the urethra a principal indication in the treatment of the disease. In none of the cases, which have come under my own observation, has the urethral dis-

* *Treatise on Syphilis*, p. 132.

† *Anfangs-gründe*, v. iii. § 57.

‡ *Treatise*, &c. p. 162-3.

§ *Lehre*, v. i. § 533. "In all the instances," says BEER, "which I have seen, this ophthalmia has occurred in young, plethoric, robust, and truly athletic men; and it has always taken place in a very short time, generally in a few hours, after the suppression of gonorrhœal discharge from the urethra."

charge been stopped; although it has generally been lessened, it has continued in some with little diminution.* On the other hand, the sudden stoppage of gonorrhœa, when effected by surgical treatment, is not followed by inflammation of the eyes. Since then gonorrhœal ophthalmia may occur, while the discharge from the urethra continues, and since it does not take place when that discharge is stopped, we cannot admit that the affection of the eye owes its origin to the cessation of disease in the urethra. I am inclined to refer its occurrence to the state of the constitution, without being able to point out in what that state consists; and to regard it as a pathological phenomenon analogous to those successive attacks of different parts which are observed in gout and rheumatism. The two other forms of ophthalmic inflammation, which take place in conjunction with gonorrhœa, show themselves only in rheumatic subjects, and generally in connection with other arthritic sufferings; and the difference between one of these and the affection now under consideration is only in degree. This view of the subject may throw some light on the circumstance that, though direct infection operates

* DELPECH gives a nearly similar statement. "Il est bien reconnu que l'écoulement ne cesse pas toujours en pareil cas; que quelquefois, et même assez souvent, il subsiste dans toute sa force."—*Chirurgie Clinique*, v. i. p. 319.

equally on both sexes, the gonorrhœal ophthalmia, said to originate in metastasis, seems to be confined to the male. I have never seen it in the female; and BEER, in the passage last quoted, says, that he has observed it only in young, robust, and plethoric men.

The state of constitution, whether hereditary or acquired, which leads to gout and similar affections, is much less common in women than in men; and will hardly be found at all among those young and previously healthy females, who are the principal subjects of gonorrhœa. Again, the morbid influences, which are experienced and exerted by the male urethra, are different from those of the vagina.

Treatment.—The only chance of arresting this violent disorder, and preserving the eye from its destructive effects, is afforded by the boldest antiphlogistic treatment; particularly by the freest abstraction of blood generally and locally. We must bleed largely from the arm, and take blood by cupping on the temples, or by numerous leeches applied round the part; and these measures must be repeated at short intervals, until the vascular congestion is relieved, and the attendant pain removed. The other parts of the antiphlogistic treatment must be combined with this free abstraction of

blood; but our great reliance must be placed on the latter. In Case V., blood was taken very largely, both locally and generally, and other powerful antiphlogistic means were resorted to: these measures were employed in a very early period of the complaint; yet the eye was lost. From the unfortunate termination of this case, and from the unfavourable issue of others recorded in this paper, I infer, not that antiphlogistic treatment is incapable of arresting this inflammation, but that it has not been employed to a sufficient extent: and, if I had to treat some of these cases again, I certainly should bleed more freely. I think that as much blood should be taken from the arm as will flow from the vein, and that the evacuation should be repeated, as soon as the state of the circulation will allow us to get more. This plan of depletion should be pursued until the local excitement is subdued. "These," says Mr. Bacot,* "are cases, which defy all the usual etiquette of regular and ceremonious visits. If we wish to save our patient from the destruction of his vision, we must scarcely depart from his bed-side until the inflammatory symptoms are controlled. The lancet must be hardly ever out of our reach, for if ever there was a disease in which blood may be taken away without limitation,

* Page 134.

it is this." Mr. WARDROP informed me, that the only case of gonorrhœal ophthalmia he had seen in which the eye was saved, was that of a young woman, in whom venesection was repeated as often as blood could be got from the arm. She lost 170 ounces in a few days, and looked as if every drop of blood had been drained from her body; the skin having nearly the hue of a wax candle. In the cases which terminated most favourably, among those recorded in this paper, blood was taken very largely. In CASE VIII. forty ounces of blood were taken from the arm on the 6th November, being the sixth day of the disease, and twenty-four leeches were applied. The same number of leeches was repeated on the 7th, 8th, 9th, and 10th; on account of a relapse eighteen leeches were applied on the 13th, twenty ounces of blood taken by cupping on the 14th, and twenty-four ounces by venesection on the 15th. In CASE IX. twelve leeches were applied on the 20th September (the fourth or fifth day of the disease); sixteen ounces were taken from the temporal artery on the 21st, and forty-four ounces from the arm on the 22nd, twelve leeches being applied on the same day; twenty leeches were applied on the 23rd, and on the 24th; twenty ounces by cupping on the 26th; thirty-six ounces by venesection on the 27th, and the same quantity

on the 28th. In Case XII., although the loss of blood was not considerable, it operated very powerfully on the circulation and strength of the patient.

For the slighter symptoms, which may show themselves after the inflammatory action has been subdued, local bleeding will suffice. The more vigorous depletion is recommended where the inflammation is fully developed, without the cornea being yet affected, or where the condition of the cornea may be doubtful; that is, where we may entertain the expectation of saving the organ from all injurious change.

If sloughing or suppuration should have already occurred, it will be of no use to pursue this very active treatment, although more moderate depletion may still be necessary. General sloughing, or general suppuration of the cornea, is usually attended by diminution of the inflammation, and cessation of pain, or at least comparative ease; the loss of blood therefore is no longer required for the relief of suffering: and it would be without an object, as vision is irreparably destroyed.

But inflammation may continue with undiminished violence after the occurrence of partial sloughing; and active depletion may still be necessary, both to limit the extent of the mischief, and

to favour the processes of separation and restoration. In Cases VIII. and IX., very free depletion, both general and local, was employed after the cornea had suffered partially in this way; and the treatment was completely successful in preserving sight. In Case III., where one cornea had sloughed entirely, and the other eye was actively inflamed, the venesection and local bleeding employed on account of the latter had no prejudicial effect on the former.

Experience does not warrant us in ascribing much efficacy to blisters: they are only to be regarded as an auxiliary measure, and may be resorted to after antiphlogistic means. They should be applied to the back of the neck; and a discharge should be kept up from the blistered surface by the use of Savine Cerate.

The ordinary local applications are only to be considered as means of lessening suffering, and thus contributing to the patient's comfort; not as having the power of checking this violent disorder. They possess in fact so little decided efficacy, that some patients find the warm most beneficial, others cold. The latter seem to me the best in the early period of the affection; but we often find it necessary to discontinue them, and to substitute the former: the feelings of the patient must be our guide. A Saturnine lotion made with rose-water, or poppy

fomentation, will answer the purpose. The eye-lids and cheek must be frequently cleaned, particular care being taken to prevent accumulation of the discharge and incrustation on the edges of the former; for which purpose, it may be necessary sometimes to smear them with some mild unctuous substance.

Although we may succeed in checking the inflammation by the means just specified, its effects are not immediately removed; some time is required for the restoration of the membrane to its natural state. The swelling of the conjunctiva, and of the eye-lids, is lessened, the membrane becomes paler with a somewhat flabby appearance, and the purulent discharge is still abundant. The patient is probably pale and weak. It has been commonly considered necessary under these circumstances, to change the treatment altogether; to administer tonics internally, and to employ astringents locally. When the inflammatory symptoms have been quickly and completely subdued, the effects of the disturbance will pass off in a little time, as in other inflammations, without the use of astringents and tonics. It will be sufficient to lessen the restrictions in diet, and to use mild aperients. In Cases VIII., IX., and XII., the recovery was speedy and favourable without the use of any strengthening medicine

or local astringents, excepting that in Case IX, a lotion, with one grain of sulphate of zinc in the ounce, was employed for a short time.

An instance may be seen occasionally, but it will be very rarely, in which sloughing of the cornea is attended with a change of symptoms, such as a small and feeble pulse, with other evidences of general depression, requiring tonics and cordials. Such symptoms may occur in conjunction with an unfavourable state of the corneal ulceration, in which, although the swelling and redness of the conjunctiva are diminished, the ulcer spreads with a whitish or dull yellow colour, and an irregular surface and edge. Here the free use of bark and a more generous diet are necessary.

Astringent lotions are proper in the case just specified; and they may be safely employed whenever the inflammation has been completely subdued: although they may not accelerate, they will not under such circumstances materially retard recovery. See Cases III. and XI. Sometimes, however, they act as stimuli, and cause relapse of inflammation: see Case V. Such relapse is the great source of apprehension after so violent a disturbance, and I think it will be most certainly averted by avoiding all local excitement, and pursuing mild antiphlogistic means.

The best forms of astringent applications are the solution of alum, from two to ten grains to the ounce of water, the solution of the nitrate of silver, and the undiluted liquor plumbi subacetatis.

Local means of this kind, especially the nitrate of silver, have been thought advisable in ulcers of the cornea, particularly those accompanied with protrusion of the iris; and, in the latter case, the remedy has been used in substance. I have found recovery to take place most speedily where none of these means have been employed: see Cases VIII., IX., and XIII.

The use of a strong astringent has been recommended in the very commencement of the affection, as a means of cutting it short, and preventing the development of the inflammation. Mr. Melin proposed this mode of proceeding in ordinary conjunctival inflammation, having considered that acute ophthalmia was in general treated too actively, and that a mere local disorder could not require such extensive depletion as was usually practised and recommended. He was further induced to try the practice, from having witnessed the good effects of a solution of lunar caustic, in some cases of gonorrhœa, both in allaying the pain and suppressing the discharge. The strength of the solution employed was four grains to the ounce of distilled water,

which was dropped into the eyes twice a day: it excited pain and a sensation of roughness, with an increased flow of tears for about twenty minutes, after which the eyes felt much relieved, and in a few days the cure was effected. "Since that period," says Mr. MELIN, "I have treated nearly three hundred cases of acute ophthalmia, some of them of a severe nature, in a similar manner, without either local or general bleeding, and I have had ample opportunities of proving its efficacy."*

Mr. BACOT † informs us, that this plan of treating ophthalmia originated with Dr. RIDGWAY, who uses a solution of lunar caustic, in the proportion of ten grains to the ounce, and has employed it in gonorrhœal as well as in common conjunctival inflammation. A case of the former kind, in which Dr. R. effected a cure by a single application of this solution, is related in the work of Mr. BACOT; but, from the details there given, I am of opinion that it was not an instance of acute gonorrhœal ophthalmia.

Very strong testimony in favour of the astringent plan of treatment in ordinary purulent ophthalmia,

* *Report of Ocular Diseases at the General Hospital, Fort Pitt;* in the *London Medical and Physical Journal*, vol. lii. p. 184.

† *Treatise on Syphilis*, p. 136-140.

is given by Dr. O'Halloran,‡ who had enjoyed ample opportunities of observing the disease, as an army-surgeon, for many years, and in various climates. He had become dissatisfied with the antiphlogistic treatment, from having found it frequently either insufficient or injurious, and was hence led to use astringents, not only in the early stage of the disease, but when the purulent discharge and chemosis were fully established. He employed the sulphate of copper in substance, rubbing with it the inner surface of the eye-lids after everting them, or he dropped into the eye the ten grain solution of nitrate of silver; and generally used one or the other once a day. He gave purgatives and applied fomentations. If the symptoms indicated that the internal parts of the organ were affected, he directed the application of leeches. After mentioning a case treated successfully with the sulphate of copper and the caustic solution, he adds, "the foregoing case with some hundreds on record, of the different varieties, show with what efficacy and safety blue-stone may be applied to the eyes when under disease: its effects in removing

‡ *Practical Remarks on Acute and Chronic Ophthalmia, and on Remittent Fever;* London, 8vo. 1824. Part I. ch. i.

the affection of the parts and allaying the irritation are remarkable. I can safely say, that abstraction of blood will be rarely necessary in this disease, if the plan recommended be strictly attended to; and I moreover am of opinion, that if any inquiry be instituted amongst the army-surgeons, it will be found that those, who used the greatest depletion, were the least successful practitioners, and that sloughing, ulcers, &c. more frequently succeeded the evacuating plan, than when the patient was partly left to nature."*

I have not seen purulent ophthalmia, whether ordinary or gonorrhœal, treated on this plan;† nor am I aware that any case of the latter kind is recorded. Destructive or injurious consequences have so frequently resulted under the usual management of this disease, that I should certainly employ the

* Page 17.

† Since the statement in the text was written, I have employed the caustic solution in two cases of conjunctival inflammation with the best result. One of these (Case XVI*.) was mild gonorrhœal inflammation. The other was catarrhal inflammation of the membrane affecting both eyes of a gentleman, who had been convalescent from gonorrhœa for a few weeks. As he was a person of robust make and full habit, and the eyes were very red and stiff, I took three pounds of blood from the arm, and purged him freely, with relief of the local symptoms, which were completely removed by a subsequent application of the caustic solution. A slight return of redness, without increased secretion took place three days after, in consequence of imprudent exertion of the organs, and a visit to the theatre; it went off without any further treatment.

local astringent if I met with a case favourable for the trial; that is, where the affection had not extended beyond the conjunctiva. Blood-letting might be resorted to at the same time. In most cases, however, our aid is not sought until the cornea has become affected, and it is therefore too late for the astringent plan. The numerous unfavourable results must be principally ascribed to this circumstance; for, when we see the disease at an early period, we arrest its progress, in a large proportion of instances, by the ordinary antiphlogistic treatment. Six such cases are related in this volume; namely, Cases V., VIII., IX., XI., XII., XIII.; and loss of the eye occurred only in one, Case V.

A circular incision through the swoln conjunctiva in the front of the eye, or complete excision of the chemosis with curved scissars, has been recommended, principally with the view of letting out the gonorrhœal matter supposed to be effused under the membrane.* The latter proceeding in particular would be impracticable in most cases, and we have no clear evidence that it has ever been put in practice.

* This kind of proceeding was first mentioned by Camerer in his *Diss. de Ophthalmia Venerea*, and afterwards by Astruc. It is recommended by Beer, *Lehre*, 1st Ed. v. i., p. 295; Richter, vol. iii., § 58; and Scarpa; Mr. Briggs's Translation, 2nd Edition, pp. 148 and 167.

Mercury has been freely given in gonorrhœal ophthalmia; by the older practitioners, as an anti-venereal remedy; by some modern surgeons, on account of its power in diminishing or changing the increased actions of the inflamed vessels. In Case XIV., communicated to me by Mr. Macilwain, where a very high degree of mercurial influence was produced, the eye first affected was lost; the second was saved. Dr. Hennen* treated three cases with large bleedings and mercury, employing the latter so as to affect the system within forty-eight hours. The event of all three was perfectly successful. In one of these cases which is detailed, thirty ounces of blood were taken from the temporal artery on the first day, and twenty-eight on the second. Depletion was very freely employed in Mr. Macilwain's case. Hence we are left in doubt respecting the degree of influence which ought to be ascribed to mercury. I have seen both the ordinary purulent and gonorrhæal ophthalmia proceeding, apparently unchecked, under the full mercurial action. Beer† expressly asserts that mercury is of no service; and the

* *London Medical Gazette*, v. ii., p. 710.

† *Lehre;* 2nd Edition, vol. 1, § 539.

testimony of DELPECH* is strong to the same effect.

On the supposition that the gonorrhœal inflammation of the conjunctiva depends immediately on the suppression of the discharge from the urethra, the restoration of that discharge has been made a main point in the treatment by some surgeons, and those of great celebrity for their experience and judgment. The means of cure, according to RICHTER,† are active antiphlogistic treatment, the use of mercury, and reproduction of the gonorrhœa; the two latter points being attended to after the inflammation has been subdued. He mentions emollient injections into the urethra, bathing the organs of generation with warm emollient fluids, particularly milk, similar bathing and poultices containing hemlock and henbane to the pubes and perineum, vapour baths, and emollient clysters, as having the power of restoring gonorrhœal discharge when it has been stopped by external causes. If these means should not succeed, he strongly recommends the inoculation of gonorrhœa by introducing

* "Quelque hâte que l'on mette dans l'emploi intérieur des preparations mercurielles, même les plus energiques, on ne parvient pas á mettre un terme à l'ophthalmie gonorrhoïque."—*Chirurgie Clinique de Montpellier*, vol. 1, p. 321.

† *Anfangs-gründe*, vol. 3, § 58—61.

into the urethra a bougie smeared with gonorrhœal discharge. If the patient should object to this proceeding, he says that a bougie may be used smeared with red precipitate ointment, but that this method is less to be depended upon than the other.

After enjoining the necessity of active antiphlogistic treatment, with local applications, first of an emollient and afterwards of an astringent kind, SCARPA says, "The surgeon should also direct that a large poultice of bread and milk with saffron be applied upon the perineum, and renewed every two hours, and that warm oil be injected into the urethra several times a day, introducing after each injection a simple bougie, with the view of reproducing the gonorrhœal discharge."*

BEER† mentions the restoration of the urethral discharge as the primary indication, and states that without attention to this point the most judicious general and local treatment will be unavailing. He says, that direct inoculation is the most certain method; advising, when this cannot be accomplished, the various means recommended by RICHTER.

In spite of the confidence, which one is inclined

* *Treatise*, &c., 2nd Edition, p. 166.

† *Lehre*, vol. 1, § 537 and 539.

to repose in the practical knowledge and judgment of those whose advice has just been quoted, I cannot help thinking that the measures in question have been recommended rather on theoretical grounds than from experience. At least these writers do not mention any results of their own practice ; nor have I met with any cases, in which the employment of such means is mentioned. In none of the instances which have come under my own observation has the gonorrhœal discharge been suppressed, so that the reason for this kind of practice has not existed. Again, when the violence and rapidity of the disease are considered, in contrast with the slowness and uncertain operation of this treatment, we cannot doubt that irreparable mischief would be done to the organ during the time lost in such attempts.

CHAPTER III.

Mild Gonorrhœal Inflammation of the Conjunctiva.

External redness of a bright scarlet tint, from distension of the superficial vessels of the globe, and increased mucous secretion, are the principal symptoms of this complaint. In slighter attacks the redness is not deep or general; the membrane is not swoln; there is little if any pain; and the increased secretion consists merely in a few streaks of whitish mucus lying between the eyelids and globe, or adhering to the margins of the former.* The characters of the affection, when more severe, approach to those of acute purulent ophthalmia. The conjunctiva swells, assumes a bright red throughout, and secretes a yellow mucus, which is discharged copiously from the eye.† The complaint yields readily to antiphlogistic treatment, and is not attended with danger to the organ, if properly managed. In its more violent form, it requires active measures; and, if not checked by their timely adoption, it may cause ulceration or

* See Cases XVI.*, XVII., XVIII., and XIX.

† See Cases XV. and XVI.

opacity of the cornea, with serious injury of sight. See the two cases last quoted.

This mild gonorrhœal inflammation of the conjunctiva may be safely and advantageously treated on the astringent plan, particularly by the solution of lunar caustic, the use of which may be preceded by antiphlogistic means in patients of full habit, or where we fear that the organ is in danger from probable extension of inflammation to the cornea.*

* See CASE XVI.*, and the note at page 45.

CHAPTER IV.

Gonorrhœal Inflammation of the external Tunics and Iris.

The vascular trunks lying between the conjunctiva and sclerotica are distended, and the anterior portion of the latter membrane becomes of a pink or purplish red. As the conjunctiva participates but slightly in the affection, these changes are distinctly seen through it. There is increased lacrymal secretion, severe pain in the eye with sense of tension, intolerance of light with profuse discharge of tears on the slightest exposure. The pain and intolerance are sometimes excessive, so that the smallest access of light cannot be borne.*

The inflammation soon extends to the iris, which loses its brilliancy, assuming a dull and deeper hue. The pupil contracts, and lymph is effused from its margin. The external redness is increased, the vessels of the conjunctiva being more distended. The cornea at the same time becomes hazy, and vision is more or less impaired. Nebulous opacity

* See Cases XXI. to XXIV.

and speck of the cornea are sometimes produced. See Cases XV. and XXIV. As the inflammation subsides, the iris recovers its natural colour, and vision is restored.

If the inflammation be considerable, it may cause adhesions of the pupil, with contraction of the aperture; and the adhesions thus formed are sometimes white as in arthritic iritis.* Even permanent dimness of sight may be produced. Sometimes repeated attacks of the disease occur, each of which causes fresh adhesion, so that at last the pupils are fixed in their whole circumference and considerably contracted. This is exemplified in Case XVI., which also shews that the complaint is not always very serious, as the patient had escaped without any material imperfection of sight, although he had employed nothing but a wash in the several inflammations he had experienced.

This affection must be treated by the abstraction of blood, general or local, and by other corresponding measures. If the inflammation be considerable, if it should occupy both eyes, and the patient should be young, robust, and plethoric, free general bleeding will be required.† Cupping and leeches

* See Cases XVI. and XX.

† See Cases XXI. and XXIV.

will suffice in the milder instances.* Warm local applications are generally the most agreeable to the patient's feelings: the poppy fomentation answers the purpose very well. Exclusion of light is absolutely necessary so long as the intolerance continues. When the inflammation is checked by these measures, blisters may be advantageously applied, and the cure may be completed by the administration of PLUMMER's pill once or twice a day, with mild aperients and a regulated diet. Colchicum is often used with advantage on account of the rheumatic symptoms which accompany this affection; and the eye may be expected to participate in the benefit, although the remedy cannot be depended on as a means of counteracting dangerous inflammation of the organ. The same observation is applicable to residence at the sea side and warm bathing, which are more advantageous to the lingering arthritic ailments, under which patients frequently suffer so long in these cases, than to the ophthalmic affection.

It is not uncommon for the same individual to experience at different times, in consequence of or in connexion with gonorrhœa, both this inflammation of the external tunics and iris, and mild in-

* See CASES XXI. and XXII.

flammation of the conjunctiva. Cases XVI., XIX., and XXI. exemplify this circumstance, which was also observed in two of the cases related by Mr. Brodie.*

Rheumatic inflammation of the joints accompanies both these forms of ophthalmic disease, when they take place in consequence either of gonorrhœa or of other discharge from the urethra. All the cases of these affections related in the present paper, except Case XVI.*, exemplify this combination. Mr. Brodie has mentioned five cases of this description, in all of which the disease of the eyes was that which I have called mild gonorrhœal inflammation of the conjunctiva; while in two of them, although the conjunctiva had been affected on one occasion, the sclerotica and iris suffered on another.† Inflammation of the joints occurred in all.

Dr. Vetch‡ relates the case of an officer, who had contracted gonorrhœa, of which the symptoms were well marked and violent, having been attended in the first instance with hernia humoralis. Rheumatic inflammation of the joints and inflammation of the external proper tunics of the eye followed

* *Pathological and Surgical Observations on Diseases of the Joints*; pp. 55 and 60.

† Ibid, p. 55—63.

‡ *Practical Treatise*, &c. p. 243.

on each occasion. After the second attack Dr. Vetch found an "irregular and contracted pupil, with some opacity of the capsule of the lens, and adhesion between it and the iris; and on causing him to shut the sound eye, the vision of the left eye was found very much impaired."

Inflammation sometimes exists at the same time in the urethra, the eyes, and the joints: in other instances these parts are affected successively. Cases XV., XVII., and XXII. are of the former kind; XVI., XVIII., and XIX. of the latter; while XX. and XXI. are of an intermediate description.

The affection of the eye last described is exactly the same as rheumatic inflammation of the sclerotica and iris occurring independently of gonorrhœa. Both this and the mild purulent inflammation of the conjunctiva are to be regarded as rheumatic affections of the organ excited by gonorrhœa; that is, they take place in individuals, in whom this constitutional disposition is shewn by inflammation affecting either the synovial membranes or the fibrous structures of several joints. Although the organs seem at first view very dissimilar, there is an analogy of structure between the parts which suffer in the two instances; that is, between the synovial membranes and the conjunctiva, and between the ligaments and fibrous sheaths, and

the sclerotica. Hence we need not be surprised at finding that the eyes suffer under the influence of that unsound state of constitution, which leads to these affections of the joints. The structure originally affected, the lining of the urethra, is also a mucous membrane, which sometimes becomes inflamed, and pours out a puriform discharge, in gouty and rheumatic subjects, from internal causes.* That the essential cause of this combination of morbid phenomena is peculiarity of constitution may be inferred from the repetition of attacks, and the length of time for which some individuals are harassed by successive appearances of disease in various parts. In Case XVI. rather severe purulent ophthalmia occurred in August, 1822, and a similar one followed soon after; from that time to the present, six attacks of rheumatic iritis have taken place. In Case XIX. discharge from the urethra without infection occurred four times; then inflammation of the foot; three years after, severe inflammation of the chambers of the aqueous humour; then gonorrhœa and mild purulent inflammation of the conjunctiva, followed by rheumatic inflammation of various joints; and afterwards severe rheumatic inflammation of the sclero-

* See Case XIX.

tica and iris. In CASE XXI. violent gonorrhœa was followed by acute inflammation of the external tunics; a second gonorrhœa excited, first purulent ophthalmia, then acute inflammation of the external tunics, and subsequently rheumatic inflammation of various joints. Two years after severe rheumatism was brought on by cold. I lately saw a gentleman with gonorrhœa, mild purulent inflammation of the eye, and rheumatic affection of the foot and back: it was the fourth attack he had experienced of the same combination of symptoms. One patient seen by Mr. BRODIE had undergone four attacks, all of which began with gonorrhœa; it was followed, first by purulent ophthalmia, and then by inflammation of the synovial membranes of several joints.* In another there had been eight attacks at various intervals during a period of seventeen years.†

As the train of diseases just described must be referred principally to peculiarity of constitution, gonorrhœal infection is not essential to their production: it is only to be regarded as one of the exciting causes, and perhaps the most frequent.

* *Pathological and Surgical Observations*, &c. p. 63.

† P. 60.

There could be no doubt that gonorrhœa had been contracted in the six cases from XVI.* to XXI. inclusive. On the other hand, in Case XVI., the patient was convinced that he had not received infection ; and, according to his description, the usual characteristics of gonorrhœa virulenta had been wanting. Mr. Brodie seems to have considered that the discharge from the urethra, in some of the instances which he had seen, was not caused by infection. In the case of the gentleman, who had had eight attacks, inflammation of the urethra with discharge was the first symptom, and occurred before the age of twenty ; he believed, however, that he had not been exposed to the risk of infection. In three of the attacks, purulent ophthalmia was the first symptom, being followed by discharge from the urethra and inflammation of the synovial membranes. In the other four attacks, inflammation of those membranes occurred without any previous disease of the eye or urethra.* In another case discharge from the urethra brought on by the use of the bougie was the first symptom.†

* P. 60. † P. 63.

CASES OF GONORRHŒAL OPHTHALMIA.

Case I.—*Gonorrhœal Ophthalmia, with sloughing of the Cornea, and Staphyloma Racemosum.*

Mr. M. æt. 24, a stout young man of full habit and florid complexion, has for some time been troubled with costiveness and a whitish foul tongue, and has frequently experienced heat about the head, with flushing of the face. In July, 1827, he contracted gonorrhœa, which was not particularly violent: he is not aware that he had applied any gonorrhœal matter to the eye. On the 11th of August, being five weeks after the commencement of the gonorrhœa, he began to feel the right eye uncomfortable: it was more so on the 12th, when the medical person, who had treated the primary affection, recommended the use of brandy and water. As this made him much worse, he placed himself under the care of another practitioner, who found him labouring under acute gonorrhœal ophthalmia of the right eye, the discharge from the urethra having diminished but not stopped. This gentleman bled

him from the arm on the 12th, 13th, and 14th; applied sixty leeches to the eye, purged him, and followed the antiphlogistic plan generally. These measures checked the inflammation, and the patient seemed to be doing well on the 15th, but he passed a very bad night, from a sense of burning heat with violent racking pain in the eye and over the brow, and sent for me early in the morning.

16th August. The eye-lids, particularly the upper, are swoln and red, but they can be opened sufficiently to give a view of the eye. The conjunctiva oculi forms a tumid ring, covering the circumference of the cornea: the latter, though free from ulceration, sloughing, or suppuration, as far as it can be seen, does not possess its natural brilliancy. There is copious yellow discharge from the eye, which is in great pain, as is the head also. He keeps his room totally darkened, finding a great aggravation of the local suffering from even the smallest admission of light. The urethra still produces a whitish discharge in small quantity. I gave a very unfavourable prognosis founded on the constitution and previous state of the patient, as well as on the violence and duration of the present attack, the severe pain in the eye and head, and the condition of the cornea; the latter circumstances particularly made me anticipate the occur-

rence of serious mischief. I ordered that 20 oz. of blood should be taken from the temple by cupping; that active purgatives should be given, and poppy fomentations used to the eye. In the evening, I found that the pain had been relieved by the cupping; the purgatives had not operated; the tongue was foul; there was head-ache and sickness. (Liq. antimon. tart. ℥ ss. to be taken immediately, and repeated every hour, so as to produce full vomiting. Twenty leeches afterwards. Cold saturnine lotion to the eye.)

17th. The emetic acted freely, and he has slept well; the tongue is much cleaner, though the bowels have not been relieved. Twenty-five leeches have been applied this morning. The lids and conjunctiva are less swelled; the cornea is clear, though not of its natural brilliancy. The pain in the head and eye is less. (The purgatives to be repeated till they operate, and afterwards a draught with one dram of sulphate of magnesia every six hours.)

18th. The bowels have been opened. He has passed a good night, and is better to-day. The swelling of the lids, the chemosis, and the discharge are less: the conjunctiva is pale red, not exhibiting the bright colour of active inflammation. The cornea is clear, as far as it can be seen. Pain is still experienced rather in the neighbourhood, as in the

cheek bone, than in the eye itself. — (Twenty leeches. Cold or tepid lotion according to inclination. Aperients continued.)

19th. The pain was removed by the leeches. The chemosis has partially subsided, showing deep ulceration of the cornea at its margin, of uncertain extent.—(Lotion and draughts continued.)

20th. Has passed a restless night. The tongue is foul; the pulse rather excited, and there is some heat of the skin. The deep ulceration has extended round the entire circumference of the cornea, and the part thus insulated is becoming opake, and apparently loosened in texture; being bounded by the sharp edge of the ulcer, it has the appearance of a vesicle or mass of jelly in the front of the eye. The ulceration seems to have extended through the entire substance of the cornea, and it forms a deep groove, on the sides of which, at some points, the corneal laminæ are visible.—(Twelve leeches; saturnine lotion; aperients.)

21st. Increased opacity of the insulated cornea; no pain in the eye. The treatment was now changed to mild local astringents and tonics internally.—(A lotion of two grains of alum in one oz. of rose-water to be occasionally introduced between the lids, and a soft rag dipped in it to be applied externally. A draught of infusion of roses, with

dilute sulphuric acid every six hours. A colocynth pill when necessary. Light nutritious diet.)

23rd. The cornea has become dull, muddy, and opake throughout, having apparently lost its vitality. The iris protrudes at one part of the ulcer. As vision is irrecoverably lost, and even the form of the globe will be altered, nothing now remains except attention to the general health, for the restoration of which the patient is advised to go into the country.

When this gentleman returned to town, after an absence of several weeks, a protrusion of the iris en masse formed a considerable irregular dark tumour on the front of the globe (*staphyloma racemosum*), the basis of which corresponded to the circumference of the cornea, while its surface, though divided into smaller prominences, was smooth from being covered by the membrane of the aqueous humour. The friction of this unnatural protrusion irritated the lids and kept up increased redness of the conjunctiva, with slight discharge. Although the greatest attention had been paid to diet, air, exercise, and the regulation of the bowels, they remained costive; the tongue was foul, and the slightest causes would bring on heat, flushing, and pain in the head. The left eye was

weak and irritable, and would not bear much employment.

July, 1828. As the inconveniences just mentioned continued, although the right eye generally had got into a quieter state, I removed the staphylomatous tumour by passing a cataract knife through its basis. The wound healed, and the globe shrunk in the orbit. At the end of a month, an artificial eye was applied, but it caused so much irritation in a few hours that the gentleman would not try the experiment again. The weakness of the left eye had been completely removed by the operation on the right.

Case II.—*Acute gonorrhœal ophthalmia, with sloughing of the cornea.*

W. F. ætat. 19, a perfectly healthy subject, contracted gonorrhœa, which had got well in eight weeks, excepting a slight discharge. The right eye now became inflamed, but without great pain. I saw him at the end of three weeks from this attack. The cornea had sloughed; the iris protruded in a mass, and considerable chemosis still existed. There was a trifling discharge from the urethra. Under the use of Plummer's pill, with

aperients and mild astringents to the eye, the conjunctiva soon recovered, the iris subsided, and the eye remained quiet with its anterior surface flattened.

CASE III.—*Acute gonorrhœal ophthalmia of both eyes, with sloughing of the right cornea, and recovery of the left eye.*

GEORGE JERRETT, ætat. 20, was admitted under my care, in the London Ophthalmic Infirmary, the 9th Sep. 1823. He had felt a slight soreness and weakness of his right eye for a few days, when he contracted gonorrhœa; and he was sleeping with a person who laboured under that affection. From the appearance, which he exhibited, of total inattention to personal cleanliness, there was every probability that the discharge from his own urethra, or from that of his bed-fellow, might have been applied to his eyes. The right eye soon became worse; great swelling and pain, and profuse discharge came on. Some days after, (Sep. 3rd) the left eye began to swell and discharge.

Sep. 9th. There is slight gonorrhœal discharge from the urethra. In the right eye the whole cornea has sloughed: it is nearly buried by chemosis. A profuse straw-coloured discharge issues from the

eye. There is the highest degree of vascular congestion, redness, and tumefaction of the conjunctiva in the left eye, with profuse discharge. The cornea is clear. The lids are œdematous, and slightly red on both sides. (Bleeding from the arm to ʒ xvi.; fourteen leeches to the left eye in the evening; a dose of calomel and jalap immediately; a saline draught with magnes. sulph. ʒ i. and liq. antim. tart. ʒ ss. every six hours. Saturnine lotion to the eye. Low diet.)

The leeches were repeated on the 10th and 11th, and the other means were continued till the 16th. The left eye has been rapidly recovering for the last three days, and the chemosis is subsiding. (A saline purgative occasionally. A solution of alum, gr. ij. to ʒ i., to be applied frequently in the day.)

18th. The alum lotion discontinued, and a few leeches to the eye.

20th. The alum lotion resumed.

24th. The eye is proceeding favourably; the chemosis nearly reduced. Alum lotion with gr. iv. to ℥ i. The undiluted liquor plumbi subacet. to be dropped into the right eye.

30th. Although the swelling of the conjunctiva is nearly gone, profuse discharge continues. Alum lotion with gr. viii. to ℥ i. Solution of nitrate of silver, gr. ii. ad ʒ i., at night.

Oct. 7th. Alum lotion continued; nitrate of silver lotion, gr. iv. ad ℥i.; red precipitate ointment to the edges of the eye-lids at night.

15th. The discharge has ceased; the conjunctiva oculi has lost its swelling and redness; the palpebral linings are still red and thickened. Discharged and ordered to attend as an out-patient, using the astringent lotions mentioned above, and taking an occasional purgative.

He was finally discharged at the end of the month with total loss of vision in the right eye, of which the front was flattened. The left eye was perfectly recovered, so far as regards vision, freedom from discharge, and absence of all uneasiness. Some unnatural redness was, however, still observable in the palpebral linings.

CASE IV.—*Acute gonorrhœal ophthalmia of both eyes; with disorganization (general suppuration?) of the corneæ, and total blindness.*

JAMES OTTAWAY, ætat. 27, a stout young man, of full habit, and very florid colour, whose occupation had been that of an agricultural labourer, was admitted into St. Bartholomew's Hospital on the 16th of March, 1826, exhibiting, in both eyes, the most destructive effects of acute gonorrhœal inflam-

mation. Five weeks ago, his eyes became sore, and felt as if dust had got into them; the pain increased during the night, which was passed without rest, and the next morning he washed the eyes with his own urine, having been informed by a neighbour that it was a very efficacious remedy. The inflammation grew more and more violent, vision was soon destroyed, and he was obliged to keep his bed.

I found the conjunctiva both of the lids and globe greatly swollen, bright red, raised into irregular prominent masses, and generally granulated. The front of each eye-ball presented a mass of granulations without any appearance of cornea. The tumid conjunctiva had everted both lids of the right eye, and the left superior one, so that the front of the orbits seemed occupied by fleshy masses. There was a copious thin yellow discharge. I could not doubt, on the first view, that it was a case of gonorrhœal ophthalmia, and proceeded to put some questions on the point, when he pretended not to know that there was such a disease as clap. However, on examining the penis, we found discharge from the urethra, warts, and incomplete phymosis; and he acknowledged that he had contracted gonorrhœa five months ago.

As he was of full habit, and had frequent head-

ache, he was cupped three times on the back of the neck, had leeches applied to the temples, and was freely and regularly purged, being confined at the same time to milk diet. A solution of alum, gr. iv. to ʒi., was frequently applied to the diseased conjunctiva; and afterwards the undiluted liquor plumbi subacetatis was dropped into the eyes night and morning. He was discharged on the 24th of April, much improved in health, and completely relieved from the ectropium, the swelling of the lids, and the puriform discharge, but in a state of hopeless blindness.

CASE V.—*Acute gonorrhœal ophthalmia, ending in opacity of the entire cornea, and adhesion between it and the upper eye-lid.*

Mr. D. W. about 24 years of age, was pursuing his medical studies in London, and attending the practice of the London Ophthalmic Infirmary, when he was attacked with purulent ophthalmia of the most severe and intractable description. I saw him in the earliest period of the affection, and adopted the most active treatment, in spite of which, however, the eye was lost. The previous circumstances, and the commencement of the inflammation are thus described by himself: "I had

contracted, for the first time, a slight gonorrhœa, which had continued for about a week, with inconsiderable ardor urinæ, and not much discharge. At that time, whilst in attendance at the Eye Infirmary, in endeavouring to cleanse the eyes of an infant labouring under purulent ophthalmia, the fluid, being injected forcibly under the lid and against the nose, rebounded into my right eye. I considered myself infected, but anticipated a very manageable complaint. My mind was, at that time, much occupied with various pursuits, and the circumstance had escaped my recollection till the third or fourth evening, when, at Dr. Spurzheim's lecture, my eye would not bear the bright light of the room, and, in a few hours, it became very painful." When I saw Mr. W. in the morning, he informed me that he had been entirely deprived of rest during the night by severe pain in the eye, which still continued, and he mentioned the occurrence at the Eye Infirmary, in which he supposed that he might have received infection from an infant labouring under purulent ophthalmia, but said nothing about the gonorrhœa. The eye-lids were a little red, and slightly swollen, with serous effusion, while the conjunctiva scleroticæ was raised apparently by the same cause into a pallid red and semitransparent chemotic ring round the cornea. The

blood vessels of the mucous membrane were but slightly distended, and this membrane had only a pale red tinge where it formed the chemosis. Considering the case to be ordinary purulent inflammation, excited by the application of matter to the eye, I thought it advisable to adopt very active treatment, in order to cut short the disease; and I expected that this might be accomplished, since the inflammation was not yet fully developed, the conjunctiva, although in the state of chemosis, exhibiting only a very slight tinge of redness. I directed the immediate administration of an active purgative, venesection to fainting, and the subsequent use of tartar emetic in such doses as to produce and keep up vomiting as long as it could be borne. In the evening, I found that these means had been carried into full effect, but that the pain in the eye had become worse, the lids being more swoln and red, and a thin purulent discharge having commenced. The venesection was repeated. On the following morning, the swelling of the lids was greatly increased, so that the eye could not be seen, and there was copious yellow discharge; the night had been passed in most severe pain, which entirely prevented sleep. Venesection was repeated twice more; blood was taken by cupping from the back of the neck and the temple, and

leeches were applied round the eye in large numbers; but although the free use of purgatives and antimonials, with low diet, was conjoined with these measures, no sensible effect was produced in diminishing the violence of the inflammation or arresting its progress. Mr. W. says, "each time as the blood flowed, I felt free from pain, but, as soon as the arm was tied up, the pain returned with equal violence. I was kept for some days under the influence of tartar emetic in nauseating doses, and fomentations were the local applications: the palpebræ were so acutely painful that the slightest touch brought on spasmodic action." The upper palpebra was enormously swelled, overhanging the lower considerably, and there was a most profuse discharge of yellow matter, running down in streams over the cheek and temple. After a time, astringent lotions were used, several trials having been made before their application could be borne; the discharge and swelling slowly abated, and, when the palpebræ could be opened, it was found that changes of structure completely fatal to vision had occurred in the front of the eye. The cornea was opake throughout, and rather more prominent than natural: its surface was irregular, presenting some opake projections as if new matter had been deposited on it. The conjunctiva of the upper lid

adhered to this prominent and irregularly-shaped cornea by a thick broad triangular fold, of which the narrowest portion or apex was fixed to the cornea, while the basis corresponded to the superior margin of the upper tarsus. The formation of this adhesion is easily understood. The cornea was, no doubt, ulcerated during the active period of the inflammation; the conjunctival lining of the upper lid was probably ulcerated at the same time. The great elongation of the lid would bring the upper margin of the tarsus opposite to the middle or lower part of the cornea, and the two ulcerated surfaces remaining in contact would coalesce, as we see in cases of symblepharon, or accretion of the palpebræ to the globe. When the subsidence of the palpebral swelling allowed the tarsus to resume its natural position, this adhesion would be elongated into a triangular fold.

This gentleman's misfortunes did not end here. Although active disease had ceased, the affected organ remained very irritable and exerted serious sympathetic influence over the opposite eye, which became painful if employed on minute objects, or for more than a short time. Mr. W. finding this grievance intolerable, was disposed to submit to any remedy for its complete removal. I accordingly divided the triangular band connecting the upper

lid to the front of the eye, and then removed the protuberant cornea and iris, as in the operation for staphyloma. The immediate effect of this operation was the reproduction of the conjunctival inflammation in all its violence, with excessive swelling, profuse discharge, and intolerable pain. The latter symptom was little affected by copious depletion, and required the free administration of opium. The tunics collapsed so that an artificial eye could be worn, and the use of the sound eye was perfectly restored.

A doubt may be entertained whether this was really a case of gonorrhœal ophthalmia; whether it ought not rather to be regarded as common purulent inflammation, excited by the application of a morbid secretion to the eye. The reasons against the latter opinion are, that, in such cases, the inflammation has followed the application of the matter almost immediately, at all events within twenty-four hours; and that the very active treatment adopted at so early a period of the affection, would have arrested the complaint had it been simple purulent inflammation.

CASE VI.—*Acute gonorrhœal ophthalmia, with suppuration of the cornea; subsequently general adhesion of the iris, and flattening of the front of the eye.*

Mr. W., ætat. 28, of tolerable healthy constitution, had a slight attack of ophthalmic inflammation two years ago. He contracted gonorrhœa, of which the symptoms, especially the ardor urinæ, were not violent. At the end of a fortnight (18th July, 1826), the discharge having nearly ceased under the use of the copaiba and injections, he slept with a woman of the town, and experienced an immediate relapse with more severe symptoms. He thinks his eyes were a little sore on that day; they were certainly sore on the 19th and 20th, though he went to his business on those days. On the 22nd, he experienced much pain in the right eye, which began to swell: there was severe pain in the eye-ball and head, preventing sleep, and he applied leeches. The pain and swelling increased, and the leeches were repeated on the 23rd and 24th. He sent me an urgent message on the evening of the 25th, when, seeing the right eye closed by a bright red tumefaction of the upper lid, and

abundant yellow discharge adhering to the ciliary margins, I immediately concluded the case to be gonorrhœal ophthalmia, and questioned him upon the point. I found that discharge from the urethra still existed, but was not abundant. He had been in great agony the preceeding night and this day. On lifting the upper lid, which was not easily accomplished, a large chemosis was seen round the cornea, and the latter was clear. The pulse was not accelerated or full; the tongue not much changed, nor was there feverishness. (Venesection to fainting. A large blister to the nape. Purgatives. Tepid fomentation: cold had been tried, and found to increase pain).

26th. Sixteen ounces of blood were taken without causing syncope: the night was rather easier. Twelve leeches were applied early this morning. There is great pain over the brow, and thence over the upper lid. Copious yellow discharge, partly thick, partly thinner. Cornea seen with more difficulty, but still clear. Leeches and other means repeated.

28th. Severe pain in the front of the eye, from the eye-brow downwards; no relief except from the constant application of the fotus papaverum. The bowels have all along been kept freely open,

and the diet has consisted only of fluids and bread. (Eighteen ounces by cupping from the right temple).

30th. The swelling of the lids, the chemosis, and pain are less. The cornea has a yellowish nebulous appearance throughout. Leeches.

31st. He had a feeling of something giving way, and has since been much easier. There is a ragged appearance at one part, as if from prolapsus iridis. Suppuration and afterwards ulceration of the cornea took place in this case, and the inferior palpebra was everted. Ultimately the cornea became opake with the iris adhering to it at several points; and the front of the globe was flattened.

CASE VII.—*Gonorrhœa; syphilitic ulceration of the tonsils and skin; acute gonorrhœal inflammation of the right eye with suppuration of the cornea, and ulceration of the conjunctiva, ending in collapse of the globe.*

JAMES HARPER, ætat 26, a stout young man with fair complexion and reddish hair, was admitted into St. Bartholomew's Hospital on the 26th June, 1829.

It is eight months since he contracted gonorrhœa; three months ago, while under treatment for that complaint, and when he had had no sexual

intercourse for two months previously, a sore appeared at the root of the dorsum penis. This became as large as a shilling, and very troublesome in a few days, so that he was induced to go into an hospital, where, soon after his admission, a bubo was opened, which, together with the sore on the penis, was nearly healed in a fortnight under the use of mercury; the discharge from the urethra still continuing in spite of injections and other treatment. On waking one morning he found a difficulty in opening the right eye, the lids being agglutinated and red at the edges; and the eye was bloodshot. The use of mercury was still continued; and the mouth was sore. On the next day the inflammation and pain of the eye had increased, and twelve leeches were ordered to the temple, but not applied till the following morning. On the fourth day he was worse in every respect: the leeches had given no relief, and excessive pain in the eye had prevented rest. There was head-ache, feverishness, and inability to see from the swollen state of the eye-lids. Slight temporary relief was afforded by cupping on the temple to 12 oz. On the fifth day the pills were ordered to be taken at shorter intervals. On the sixth the cupping was repeated, the eye-lids being more swelled and painful. He does not remember that any yellow

discharge took place from the eye at this period; but the tears, which ran down the cheek, were very hot and excoriated the skin. He is not aware that he applied any of the gonorrhœal matter to the eye; but the other patients told him, that he had brought on the disease in the eye by rubbing it with his finger. During the following week he continued the mercurial pills every four hours, but lost no more blood. Another surgeon, who found him in great pain, on going through the ward, directed venesection to twelve ounces, and subsequently cupping to the same amount. A puncture was then made in the eye by the house-surgeon, but not followed by any escape of matter. Mercurial ointment was now ordered to be rubbed into the temple and forehead; but as the eye continued swelled and acutely painful, and the throat had become sore, he was dissatisfied and left the hospital. He immediately applied to an oculist, who told him the eye was completely destroyed, and directed leeches, fomentations, and opiates to procure rest. On the 25th June he came to my residence in great distress, and much reduced by the treatment and long continued suffering: he was directed to lose twelve ounces of blood from the temple, by cupping, and to come to St. Bartholomew's on the following day.

June 26th. The conjunctiva, excessively distended by serous effusion, protrudes between the lids of the right eye, which are greatly swelled, and of a deep livid red. The situation of the cornea is marked by a hollow on the front of the eye, at the bottom of which there is a soft but tenacious yellow mass, which might be taken, on the first view, for yellow matter; but it cannot be wiped off, and turns out to be the corneal substance, with a thick yellow deposition throughout its texture, exposed by general ulceration of the surface. The conjunctiva is particularly elevated at the lower part of the eye, apparently from a yellow deposition under it. The membrane is pale and flabby; a thin puriform fluid flows abundantly over the cheek: agonising pain is felt in the globe and orbit.

Slight discharge continues from the urethra, without heat or pain. A yellowish excavated ulceration is seen in each tonsil. A few superficial phagedenic ulcerations, some as large as a half-crown, occupy the trunk and limbs; and two small superficial sores are seated on the back of the penis. The gums are sore, and there is ptyalism from the use of mercury.—(Twelve leeches to the eye: a dose of calomel and jalap.)

28th. Increased pain, with head-ache, thirst, and

feverishness.—(Venesection to 16 oz.: a dose of calomel and jalap.)

29th. Much better.—(Decoction of bark with dilute sulphuric acid every six hours: a light bread poultice to the eye: strong broth.)

July 6th. The swelling of the conjunctiva and lids, and the pain are lessened. The ulceration of the cornea has continued, presenting just the same appearance of a thick yellow and nearly fluid mass, as at first. The prominence of the conjunctiva has ulcerated, forming a circular excavated sore with yellow surface. Copious puriform discharge continues. The throat is painful, and the ulcerations of the tonsils are proceeding.—(Cinnabar fumigation to the throat night and morning.)

14th. The throat is well, and the fumigation discontinued. The sores on the trunk and limbs are nearly healed, under bread poultice. The yellow substance is in great measure removed from the front of the eye; the red circle round it, formed by the swollen conjunctiva, is contracting. The circular sore of the conjunctiva is rather increased. Considerable pain is felt in the eye and brow.—(Twelve leeches.)

15th. Leeches repeated.

17th. Pain not relieved: general uneasiness and want of rest.—(Extract of conium, five grains every eight hours.)

20th. Not relieved.—(Calomel two grains, with opium half a grain, every night and morning.)

22nd. The pain is much lessened, and he sleeps well. The upper eye-lid has nearly regained its natural size and appearance. The globe forms an irregular red prominence, with a hollow in the centre, of which the sides present a dirty yellowish substance, and something like granulations. The ulcerated excavation of the conjunctiva is beginning to granulate. A whitish puriform discharge from the eye continues. The urethra still discharges a little. The throat is well; the other ulcerations are healing fast. Two or three fresh pustular eruptions have appeared within these few days.

In about three weeks from the last date, the ulcerations on the front of the eye had healed; and the globe, covered uniformly by a loose reddish conjunctiva, hardly presented a trace even of the situation of the cornea. All the other symptoms were gone, and he left the hospital. He has since been twice in the hospital with phagedenic ulcerations and affection of the pericraniun, which have yielded readily to sarsaparilla and narcotics. The globe of the eye is shrunk, and divided by two deep depressions, disposed crucially, into four small prominences. No vestige of the cornea remains.

CASE VIII.—*Acute gonorrhœal ophthalmia of both eyes, with partial slough of one cornea, and subsequent partial staphyloma: recovery with impaired vision.*

J. SEAGER, a footman, 21 years of age, of healthy constitution, was admitted into St. Bartholomew's Hospital, November 6th, 1828. A month ago, being then in good health, he contracted gonorrhœa, the symptoms of which were not particularly violent: he took a few doses of opening medicine, and did nothing else for the complaint. At the end of three weeks (on the 1st of November), he felt pain and weakness in the left eye, which began to discharge yellow matter. As this increased, the discharge from the urethra diminished, but never ceased entirely. Two days after, the right eye became affected in a similar way, but in a slighter degree. He was not aware that he had applied any of the gonorrhœal matter to the eyes; but when closely questioned, he said that he once wiped his eyes with a towel, on which there was some of the urethral discharge, and that this occurred before the eyes were affected. The medical attendant of the family, to whom the existence of gonorrhœa

was not made known, prescribed a few leeches to the left eye, a blister to the temple, poppy fomentations, and opening medicines. As the disease advanced in spite of these measures, which produced no relief, and the swelling of the lids completely closed the eyes, the patient became much alarmed, and was sent to me by his master.

Nov. 6th. The eye-lids on both sides are swelled and red, and there is general swelling and flushing of the face. A thick yellow discharge hangs about the lids, and flows abundantly from between them over the cheeks. The entire conjunctiva of both eyes is of a bright scarlet, with a finely granulated or rougher surface, and covered with yellow matter; it is much swollen on the sclerotica of each eye, forming an irregular tumid ring, portions of which cover a considerable part of the cornea. The swelling of the lids and of the conjunctiva, with the copious puriform discharge, render it difficult to ascertain exactly the condition of the cornea; this point is at last however accomplished. A white slough has occurred on the left cornea, towards the internal angle: it occupies about one-fourth of the cornea, which is transparent in the rest of its extent, so far as the chemosis will allow it to be seen. Surrounding objects are distinguished

with this eye. The palpebral swelling and the chemosis, are less considerable on the right side, where the cornea is unaffected and vision perfect.

There is now, and has been for the two last days, severe pain in the eye-balls, and across the forehead, with general head-ache. Exposure to light aggravates the suffering. He has not slept for the two last nights. The tongue is foul; the pulse 108, full and hard. Thick yellowish discharge fills the orifice of the urethra, and can be squeezed out by pressing the canal.

The right eye may be considered safe, as the chemosis is moderate and the cornea uninjured. The fate of the left is doubtful: the inflammation may probably be arrested, when the separation of the slough will lead to the formation of a partial staphyloma.—(Venesection to fainting immediately; twenty-four leeches round the eyes in the evening. Saturnine lotion. A blister to the back of the neck. Fifteen grains of jalap, with five of calomel immediately. A saline draught with one dr. of liq. antim. tart. every six hours. Seclusion from light. Milk diet.) Nearly 40 oz. of blood were taken from the arm, the first cupful being buffed and cupped. The calomel and jalap were repeated in the evening.

7th. The inflammation, swelling, and pain are

lessened. Pulse 88, full.—(Twenty-four leeches: medicine continued.)

8th. Leeches repeated; a draught every six hours, with one dr. of sulphate of magnesia, instead of the saline antimonial draught.

The leeches were repeated on the 9th and 10th.

12th. He has been kept quiet in bed, taking the opening medicine, and having a cloth wetted with saturnine lotion constantly over the eyes. The swelling and flushing of the countenance are gone; the lids are much less swollen. The chemosis of the right eye has subsided, and a small transparent ulcer, of elongated figure, is now visible on the inner margin of the cornea. The conjunctiva continues bright red, and there is copious yellow discharge.

Some chemosis still remains in the left eye. The slough has separated from the cornea, apparently without having penetrated the anterior chamber. Yet it must be observed that the iris seemed in contact with the cornea, at the time of admission, as if the aqueous humour had been discharged. A smooth tumour is formed in the situation of the slough; it consists of a prolapsus iridis, covered by the membrane of the aqueous humour. Pain nearly gone.

13th. Slight relapse of inflammation; pulse sharp and full; 18 leeches.

14th. The medicine ordered on the 8th has been continued, and keeps the bowels regular. The symptoms observed yesterday have not yielded. Cupping on the temples to 20 oz.

15th. Pulse still full. 20 oz. of blood taken from the arm.

18th. Twelve leeches to the left eye.

24th. There has been a regular diminution of the symptoms, so that at present there is very little redness in either eye, and the discharge has almost ceased. The ulcer of the right cornea presents the soft greyish appearance which denotes the progress of restoration. The staphylomatous protrusion of the left cornea forms a smooth tumour as large as a pea, which irritates the lid slightly.

December 23. The eyes have been quite well since the last date, perfectly free from uneasiness, discharge, and even the slightest appearance of unnatural vascularity. The ulcer of the right cornea is not quite healed; but it is only discoverable on close examination. The swelling caused by the prolapsus iridis in the left eye is shrunk to 1-3d of its original bulk. Discharged.

April, 1829. The protuberance on the cornea is gone; there is a small opacity, with the iris adherent to it. Although the pupil is clear, and of its natural size, vision is imperfect.

CASE IX.—*Acute gonorrhœal ophthalmia, with partial slough of the cornea and prolapsus iridis; complete recovery of sight.*

R. C. ætat. 21, admitted into St. Bartholomew's Hospital in September, 1827, is a very well made athletic man, and follows the occupation of a pugilist. In order to increase his weight and strength he indulges very freely in animal food. When under training he takes three pounds of beefsteaks nearly raw for dinner, with a bottle of wine; and his other meals are in proportion.

September 20th. It is about three weeks since he contracted gonorrhœa: his left eye became inflamed and painful four days ago; and he thinks it probable that he may have conveyed the discharge from the urethra to the eye by his fingers. There is violent gonorrhœal inflammation of the left eye, with chemosis so considerable that the cornea is nearly covered, profuse purulent discharge, and inflammatory swelling of the lids and neighbouring integuments.—(Twelve leeches round the eye; opening pills and draught; milk diet.)

21st. Bowels not opened; pulse 96, full and strong; the inflammation of the eye not checked.

—(Sixteen ounces of blood taken from the temporal artery; opening medicine repeated.)

22nd. Bowels not opened; pulse of great fulness and strength; inflammation proceeding actively.—(Venesection to fainting; 44 oz. of blood were taken; twelve leeches about the eye; large doses of calomel and extract of colocynth.)

On the 23rd and on the 24th twenty leeches were applied about the eye, and various opening medicines were administered; clysters were employed on the 25th, but the bowels were not opened till the 26th, when he took the sulphate of magnesia in dram doses with a little carbonate of magnesia every two hours. The local inflammation is not lessened, and the pain is very severe, more particularly in the night. Twenty ounces of blood taken by cupping from the left temple.

27th. The chemosis and pain are rather less; the bowels are freely open; the pulse is still powerful. —(Venesection to fainting; 36 oz. were taken; a blister behind the left ear, and the blistered surface to be dressed with the cerat. sabinæ. The opening mixture to be continued every four hours.)

28th. Pulse still full, but more compressible. He feels much better: the eye is always relieved by the abstraction of blood locally or generally. The

bowels are not open.—(Venesection to fainting; 36 oz. were taken. The opening medicines to be repeated every two hours.)

29th. The chemosis is diminished, so that the cornea can be seen; it appears rather hazy, but the colour of the iris and the pupil are distinguishable. A small vesicle now appears on the lower margin of the cornea, which had been hitherto covered by the swollen conjunctiva: it is a protrusion of the membrane of the aqueous humour at an ulcerated aperture, probably produced by the separation of a slough.—(A blister to the temple.)

October 1st. The inflammation is much reduced, but the lids are still red and swollen, and the discharge profuse.—(A weak solution of zinci sulph. (gr. i. ad. ℥i.) to be injected frequently.)

2nd. The improvement continues, and the cornea is now clear. Prolapsus iridis has taken place at the ulceration of the cornea: it involves only a small portion of the pupillary margin.

6th. The pupil is largely dilated by the application for the last four days of the extract of belladonna on the brow. He can see clearly, and is free from pain; but the discharge is still profuse, and excoriates the integuments over which it flows. The protrusion of the iris covered by the membrane of

the aqueous humour forms a smooth oblong tumour on the margin of the cornea, about 1-3d of an inch in length, and half as broad.

25th. The discharge and all other symptoms of inflammation gradually went off, leaving the eye quite natural in its appearance, and with unimpaired vision. The swelling on the cornea lessened very considerably. The upper lid remained rather tumid, and the eye could be only half-opened by the unassisted power of the levator. He was discharged, having repeatedly absented himself from the hospital without leave.

I have seen this patient in the present year, 1829. The eye has remained well since he left the hospital. The protuberance caused by the prolapsus iridis has disappeared, and the natural figure of the cornea is restored. In the situation of the protrusion there is a nearly circular opacity about 1-8th of an inch in diameter, and the iris adheres to it. Vision is perfect.

CASE X.—**Acute gonorrhœal ophthalmia, terminating in leucoma, with extensive anterior adhesion of the iris.*

"J. M. S., 18 years old, while labouring under gonorrhœa, was attacked, at the end of July, 1825, with slight inflammation of the inner canthus of the right eye. On Monday, August 1, the eye being rather more inflamed, he rose early for the purpose of bathing; but the inflammation was so much increased by exposure to the heat and light of the sun, that he returned without having been in the water. On his return leeches were applied to the temples, and he took aperient medicine, which acted freely. On the 2nd he was bled, and had a blister to the back of the neck. On the 4th venesection was repeated to syncope. The eye was much more inflamed on the 5th, when the conjunctiva was scarified freely. Leeches were repeated on the 6th, and were again frequently employed from the 6th to the 18th, with blisters, scarifications, fomentations, and aperient medicine.

* The history of this case was communicated to me by the gentleman who had charge of it. I have seen the patient several times since his recovery.

There was great swelling of the conjunctiva, with copious purulent discharge throughout: the latter was frequently removed by syringing with poppy fomentation. Little or no pain was experienced during the progress of the affection. In the morning of the 18th the patient exclaimed to his medical attendant, 'I can see you!' About the middle of the same day a sharp pain penetrated through the eye, and he felt something run down his cheek. At this time the cornea had given way.

"He had been affected with gonorrhœa about a a year before: both eyes were then inflamed, but the affection was slight, not attended with discharge, and yielded readily to aperient medicines only."

The lower half of the cornea is now opaque, and the corresponding part of the iris, including the entire pupil, adheres to the opacity. It does not appear that the cornea sloughed in this case; it must have been violently inflamed; suppuration probably took place, and ulceration; in which case what is called the *giving way of the cornea* must have been the penetration of the ulcer into the anterior chamber.

CASE XI. — *Acute gonorrhœal ophthalmia, with deep ulcer at the margin of the cornea: complete recovery.*

JOHN BIGGS, ætat. 21, was admitted into the London Ophthalmic Infirmary on the 9th Nov. 1824. He has been subject to sore eyes. Three months before admission, he contracted gonorrhœa: the symptoms were severe, but had become rather better, the discharge still continuing, when the right eye began to inflame, a week ago. The lids are now tumid, and the whole conjunctiva swollen: there is great chemosis concealing the circumference of the cornea, the centre of which is nearly clear. There is severe pain, and profuse discharge. The gonorrhœa continues, with some ardor urinæ. —(Sixteen oz. of blood from the right temple by cupping; 12 leeches to the eye in the evening. A full dose of calomel and jalap; and, afterwards, magnes. sulph. ʒi. in infus. rosæ, every six hours. A blister between the shoulders, and savine cerate.)

Dec. 1st. The leeches and blister have been repeated, and the medicine has been continued. Alum lotion (gr. ii. ad i.) has been substituted for the saturnine which had been first employed. The swelling of the conjunctiva and lids is gone; a

deep ulcerated trench, which had been previously concealed by the chemosis, is now seen in the margin of the cornea, extending for about 5-6ths of its entire circumference: within this trench the cornea is slightly nebulous.

8th. The eye is recovered, excepting the ulcer, which is proceeding favourably. He was discharged on the 10th, with perfect vision, and feeling himself quite well. The ulcer healed, and left merely a slight white line near the edge of the cornea, which did not interfere with vision, and was not even discoverable without close inspection.

CASE XII.—*Acute gonorrhœal ophthalmia of the left eye; gonorrhœal discharge continuing from the urethra: complete recovery.*

JOHN CAPSEY, ætat. 20, a pale and thin youth, of feeble appearance, was admitted into St. Bartholomew's Hospital on the 3rd of April, 1827. Six weeks ago he contracted gonorrhœa, and left the complaint to itself: slight discharge still exists, of light colour, and without scalding. Both eyes became sore and bloodshot a few days ago, and the left was more particularly affected: for the last two days, the lids of the left eye have been

swelled and closed, with constant severe pain, and copious discharge of matter. At present (April 3) there is acute gonorrhœal inflammation of the left eye: the conjunctiva, both of the lids and globe, is bright red and swollen, forming chemosis in the latter situation: there is copious thin discharge, of light yellow colour. The cornea is unaffected. The eye-lids are swollen, particularly the superior, which is considerably so, with the integuments tense, smooth, and bright red.—(Venesection to fainting immediately: twelve leeches to the lids in the evening. A dose of calomel and jalap immediately; and a drachm of sulphate of magnesia every six hours. Cold saturnine lotion to the eye. Milk diet.)

4th. Leeches repeated; a blister to the back of the neck, and the surface to be dressed with savine cerate.

6th. The loss of blood has rendered him extremely pale and feeble, so that the lips have very little colour, and he is unable to sit up in bed. The chemosis, the swelling and redness of the upper eye-lid, and the discharge are all so much lessened that the eye is considered safe. Medicines and wash continued.

9th. A dose of calomel and jalap.

17th. He became salivated on the 10th, and has

since taken nothing but an occasional dose of aperient medicine. The eye has been quite well for some days, and exhibits hardly any trace of the previous severe inflammation. There has been a copious eruption of small red patches on the arms, which is now disappearing.

24th. Discharged perfectly well.

CASE XIII.—*Gonorrhœa; syphilitic sores, buboes, and eruptions; gonorrhœal ophthalmia of both eyes, with large ulcer and prolapsus iridis; recovery of sight.*

THOMAS HADNETT, ætat. 37, who was admitted an in-patient of the London Ophthalmic Infirmary, under my care, on the 11th of April, 1826, stated that his right eye had become affected on the 2d of the month. It was uneasy, with a sensation of gravel in it, on going to bed, and had swelled so much by the morning that he could not open the lids, and has not been able to open them since; a discharge of matter took place at the same time. He had applied a bread poultice, and taken some salts. The left eye began to discharge on the 10th of April.

April 11th. There is an abundant discharge from the urethra, without scalding or pain; phymosis;

induration of the orifice of the prepuce with superficial sores. The glands are swollen in each groin. Every part of the body, except the lower half of the thighs and the legs, is closely covered with light brown superficial discolourations, some of which are slightly scaly. There is acute gonorrhœal inflammation of the right eye, with chemosis, profuse thin puriform discharge, a deep marginal ulcer at the upper part of the cornea, and large prolapsus iridis. The inflammation of the left eye is less considerable, and the cornea has not suffered: the conjunctiva is red, but not swelled, and there is discharge.—(Twenty-four ounces of blood to be taken by cupping, from the temples; a blister to the neck, to be kept open with the savine cerate; saturnine lotion to the eyes. A dose of calomel and jalap; and afterwards one drachm of magnes. sulph. in the infusion of roses every six hours. Milk diet.)

Twelve leeches were applied to the right eye on the 12th, and fourteen ounces of blood were taken from the temple on the 16th, the medicines having been continued. Five grains of blue pill are now directed night and morning.

19th. Solution of alum (gr. ii. ad $\bar{3}$i.) as a lotion to the right eye.

30th. The left eye has been quite recovered for the last week. The chemosis has entirely disap-

peared in the right eye, and the conjunctiva has nearly regained its natural colour. A semi-circular ulcerated trench occupies the superior half of the cornea, at its circumference, the ulceration extending, at its widest part, nearly to the centre of the cornea. The prolapsus iridis has receded, but the iris remains adherent. The mouth has been sore the last ten days. The sores and the induration of the prepuce are much diminished, and the eruption is fast disappearing.—(To discontinue the blue pill; to take acid. sulph. dilut. ℿxv. in the infusion of roses, three times a-day, and have a little meat and porter for dinner.)

May 5th. The syphilitic symptoms are rapidly disappearing, and the right eye is going on most favourably. He leaves the infirmary by his own wish, to attend as an out-patient.

CASE XIV.—*Acute gonorrhœal ophthalmia in a female; recovery of one eye; opacity of the cornea, adhesion of the iris, and loss of sight in the other.*

This case was under the care of MR. MACILWAIN, who has kindly furnished me with the following history, drawn up from his recollection, as he could not find the notes taken at the time.

"The patient, a young woman, applied to me

for what she called weak eyes, which I found, on examination, to be a slight degree of catarrhal ophthalmia. I merely ordered her some aperient medicine and poppy fomentation, and, in a few days, the disease had nearly disappeared. After an interval, however, of about three days, she again applied, when I was surprised to find both eyes affected by violent gonorrhœal inflammation. The palpebræ were much swollen; the conjunctiva lining them, as well as that covering the globe, in a state of acute inflammation, the latter portion of the membrane presenting a much raised chemosis; the cornea dusky; great pain in the eyes and head, with a profuse purulent discharge. I now learned, for the first time, that she had gonorrhœa; but I was, for some minutes, foiled in my endeavours to elicit from her any circumstances to justify the opinion that the vaginal discharge had been applied to the eyes; and, when interrogated on that point, she said that she had been particularly cautious in avoiding the use of any linen for other purposes, which had been employed in cleansing the parts affected with gonorrhœa. As she was about to leave the room, her mother reminded her that since I last saw her she had washed her eyes with her own urine, and that they had become much worse immediately afterwards, the pain increasing with the

addition of discharge and the other symptoms, of which she now complained. The treatment consisted in the free abstraction of blood, and the administration of brisk saline purgatives every three hours till the bowels had been largely evacuated. She was bled from the arm ad deliquium three times, and blood was afterwards taken locally by cupping and leeches. One grain of calomel with a quarter of a grain of opium was then prescribed thrice a day. The effect of this was that one night, without previous warning, she was seized with the most violent degree of ptyalism I ever witnessed. The tongue became prodigiously swollen, hanging out of the mouth, and presenting an appearance which induced apprehensions of its sloughing. The mercury was discontinued, the only other measures employed being the application of belladonna round the palpebræ, and frequent ablution, with poppy fomentation. The result of the case was complete restoration of one eye, partial opacity of the cornea in the other, with adhesion of the closed pupil, and loss of sight."

Mr. Macilwain adds, "I always employ mercury in the treatment of this disease; not from any opinion of the identity of the gonorrhœal with the syphilitic virus, but from it having appeared to me that the degree of recovery in such cases had some

relation to the severity of the new action produced by this mineral. In following this plan, I have been further influenced by the too frequent inefficiency of the most active anti-inflammatory treatment, when employed alone."

CASE XV.—*Gonorrhœa; rheumatic swelling of the joints; acute external inflammation of the eyes, with extensive ulceration of the cornea.*

JOHN HARLEY, 38, a man of spare habit, who had never previously suffered from rheumatism, was admitted into St. Bartholomew's on the 27th April, 1826. He contracted a gonorrhœa, which, however, according to his account, did not shew itself till six or seven weeks after sexual connexion. One month after its appearance both eyes were attacked at the same time with severe inflammation, accompanied with great burning, watering, and swelling of the lids: the discharge from the urethra was lessened, but did not cease. Within one week from the affection of the eyes, the right wrist and hand, and soon afterwards the left, swelled and became very painful, particularly at night. He had washed his eyes with his own urine, but not till some days after the occurrence of the ophthalmia.

April 27th. There is slight gleet. Both wrists and hands are swelled and painful; the tumefaction is general and rather œdematous, with a flush of red in the skin. The pain is aggravated by any attempt at motion, of which the affected parts are nearly incapable. General redness of both eyes and lids, with thin puriform discharge. Extensive ulceration of both corneæ, which are so opaque as to conceal the iris and pupil: a small transparent vesicle is seen towards the centre of each. The eyes are painful, with some intolerance of light. He can merely distinguish light from darkness. The patient is emaciated and feeble.—(16 oz. of blood from the temples by cupping. A dose of calomel and jalap immediately. Tepid fomentation to the eyes. Milk diet.)

28th. The eyes are better, but the bowels are not opened.—(To repeat the calomel and jalap, and follow it by a purging draught. A lotion composed of mistur. camphoræ, ℥ vi., with spirit. rectif., ʒ ii. to the the hands.)

30th. The bowels, which had not yet been acted on, were plentifully evacuated by an injection. The hands are much better, but the synovial membrane of the left knee is inflamed.—(Cupping on the knee to 16 oz. six leeches to each eye.)

May 3rd. The eyes and joints are much better.—(One drachm of vinum colchici in a saline draught every night.)

5th. Six leeches to the left eye, and a blister to the nape of the neck.

June 8th. There has been regular improvement both in the local symptoms and general health. The knee is well; the wrists, particularly the right, somewhat swelled and stiff. The conjunctiva has its natural paleness, and the discharge has ceased. The right cornea is slightly nebulous and irregular in its surface at the ulcerated part, so as to impede the view of the pupil: the latter does not dilate by the application of belladonna. There is general nebula of the left cornea, with greater irregularity. The transparent vesicle is no longer seen on either side. He can see objects and colours, and find his way about. He has discontinued the colchicum for some time, and taken instead the dilute sulphuric acid in an infusion of bark and rose leaves. Soon after this time he left the hospital quite well, the cornea remaining nebulous, and vision imperfect, though considerably improved.

CASE XVI.—*Discharge from the urethra with purulent ophthalmia of both eyes, and severe rheumatic affections, followed by repeated attacks of rheumatic iritis.*

A gentleman, 52 years of age, tall, of fair and florid complexion, light eyes, and spare habit, consulted me for a serious affection of his eyes in the month of August, 1822. Acute inflammation of the conjunctiva, with chemosis, and copious yellow discharge was found on the right side, and I considered the eye in danger. The left eye was slightly affected in a similar manner. By venesection, cupping, and other measures, the inflammation was arrested, and both eyes completely recovered.

Soon after one foot became swelled, red, and acutely painful; then one knee swelled, and subsequently both hands. These affections became better, and the eyes were again inflamed, so as to require cupping. This attack was soon removed, when the swelling and pain of the joints returned, with the addition of severe pain in the back, which interfered with breathing. Every kind of treatment, including residence at the sea-side and warm sea-bathing, was tried for these affections, which were very severe and obstinate, and lasted with much

suffering for at least two years. Previous to the beginning of the disease, and during a considerable portion of its progress, there was slight discharge from the urethra, which the patient did not consider to have arisen from infection.

December, 1828. This gentleman, whom I have seen after a long interval, has had no acute rheumatic attack since that which I have described. The joints which were then affected have never recovered their full powers of motion ; the hands and foot are very stiff, and two or three fingers on each hand cannot be bent at all. The back has continued quite well. He has had several, at least six attacks of inflammation in the eyes, attended with pain, intolerance of light, lacrymation, and inability to use them. For these he has employed no medical treatment, except the use of a wash. Both pupils are slightly contracted, and have their margins fixed by white adhesions ; these occupy nearly the whole circumference of the aperture in the left eye. From these changes it is obvious that the recent attacks have been, not as the first was, purulent inflammation of the conjunctiva, but rheumatic iritis. In flesh, countenance, appetite, and general feelings, this gentleman may be considered perfectly well. There has been no return of discharge from the urethra.

CASE XVI*.—*Gonorrhœa, with mild inflammation of the conjunctiva.*

Mr. E. L., about 26, of spare habit, with dark-brown hair and brown irides, has never had arthritic disease of any kind. Two years ago he had a gonorrhœa, unattended with any other affection. When I saw him on the 10th of March, 1830, a gonorrhœa, which he had contracted eight days before, was proceeding in a regular way with well-marked but not violent symptoms, and his eyes had been inflamed for one or two days. The conjunctiva lining the lids was bright scarlet; the membrane was of the same colour on the circumference of the globe, but it was not much affected on the anterior part of the sclerotica. The latter tunic did not participate in the inflammation; it could be seen, on the front of the globe, of its natural white colour. A small portion of thick white mucus lay between the lower lid and the globe on each side, and a little yellow discharge appeared at the inner angle of each eye. There was slight general swelling of the lids; the eyes were watery, not in pain, nor impatient of light.—(Saturnine lotion; an aperient draught; saline medicine with antimony.)

12th. The eyes are nearly in the same state. A

solution of argenti nitras (g. iv., ad. ʒi.) was dropped into each, a single drop being introduced between the palpebræ.—(The eyes to be frequently bathed with a collyrium of hydrarg. oxymur. g. i. in aq. ros. ʒviii., and the size of a large pin's head of ointment, made of hydrarg. nitrico-oxyd. g. ii., fresh butter ʒi. to be applied to the edges of the lids at bed-time.)

15th. The caustic solution caused a smarting of the eyes, which lasted three hours, after which they were much better, the swelling of the lids having been entirely removed, and the redness of the conjunctiva much lessened. Mr. L. was in the Court of Chancery on the 13th from ten o'clock to four, and found the eyes rather worse from the exertion of them and the heat of the place. They are much better to-day, the redness being diminished, the swelling and the mucous discharge quite gone.—(Caustic solution repeated; copaiba mixture for the gonorrhœa.)

May 15th. The eyes became pefectly well after the last application of the solution, and have continued so. There is still slight gleet.

CASE XVII.—*Gonorrhœa, affection of the hip, and mild inflammation of the conjunctiva.*

Mr. G., ætat. 33, a robust person, of good constitution, who had never suffered from rheumatism, contracted gonorrhœa, which appeared on the 9th of July, 1827, without any unusual severity of symptoms. He used an astringent injection, under which the discharge became considerably less, without stopping altogether: no pain, nor other unpleasant symptom followed this treatment. On the 23rd, the discharge still going on, the eyes became affected: they were worse on the 24th, when leeches were applied, and I saw him on the 25th. The conjunctiva, both of the lids, and globe is equally inflamed in both eyes. The inflammation is strictly confined to the mucous membrane; there is not the slightest redness of the sclerotica, nor any affection of the cornea. The conjunctiva palpebrarum is bright scarlet, with a few streaks and spots of ecchymosis. That of the globe is the same, the scarlet colour being the deepest at the circumference, and gradually shaded off towards the cornea, round which the redness is inconsiderable, so that the sclerotica can be here seen, through the conjunctiva, of its natural whiteness. The surface

of the inflamed membrane is covered with increased lachrymal discharge, mixed with streaks of thin whitish mucus. There is slight effusion into the cellular membrane, producing a little thickening of the conjunctiva, which, with the increased lachrymal secretion, gives the eyes a watery look. The eye-lids are reddish externally, and slightly swollen: their margins were agglutinated last night. There is no pain: the lids are kept partially closed, but they can be opened, even in a strong light, without inconvenience. The cornea is perfectly natural.

Yesterday and to-day a rather severe pain has been experienced in the left hip, extending along the limb to the knee: this prevented sleep, but is now (in the morning) nearly gone. A thin whitish discharge proceeds rather copiously from the urethra, without ardor urinæ or irritation of the bladder. The tongue is a little furred, and the pulse rather full.—(Venesection to 16 or 20 oz. or to fainting; a dose of calomel and jalap, and afterwards a drachm of sulphate of magnesia in infus. rosæ three or four times a-day. Cold saturnine lotion to the eyes. Light diet, without fermented liquors.)

26th. Eighteen or twenty ounces of blood were taken, with relief; the cold lotion is agreeable.

No material change in the appearance of the eyes. —(18 leeches ; lotion and medicines continued.)

27th. Much better. Kept awake last night by the pain of the hip and thigh. Urethral discharge copious.—(A dose of calomel with extract. colocynth. comp. followed by a purging draught. Lotion and medicines continued.)

28th. Eyes much better: the redness, swelling, and discharge are lessened. The pain of the hip and the gonorrhœal discharge continue.—(Liniment. ammon. fort. to be rubbed on the limb night and morning. To take at bed-time the following draught:—(℞. Vin. colchici. tinct. hyoscyami aa ʒi. Magnes. sulph. ʒ i. magnes. carb. ʒ ss. Aq. menthæ, aq. puræ aa ʒ vi.)

30th. The eyes are well. The hip is better, and the patient rested well last night. The copaiba with liq. potassæ is ordered three times a-day.

Aug. 9th. The gonorrhœal discharge ceased in two or three days, the pain of the hip went away, and the patient left London. He began to live more freely, and two days ago travelled on the outside of a coach, exposed to the sun and dust. The eyes became inflamed again, and he has now a sharp attack of conjunctival inflammation exactly similar to the former, except that it is less violent. There is a slight return of pain in the hip, but no

discharge from the urethra.—(Purgatives, low diet, and rest.)

17th. The eyes are now well, but look rather weak. There has been a little nearly colourless discharge from the urethra.—(Copaiba mixture, sea-air, and warm sea-bathing.)

Every trace of disease soon disappeared.

CASE XVIII.—*Gonorrhœa, with affection of the joints, and mild inflammation of the conjunctiva.*

Mr. C. ætat. 38, accustomed to indulge his appetite very freely, corpulent, of full habit, and subject to rheumatism, of which he had a violent and obstinate attack six years ago, contracted gonorrhœa. Subsequently the synovial membrane of the right knee became inflamed, and the joint swelled very considerably: there was also general and painful swelling of the hands. When I saw him, the knee-joint was diminishing.—(Five grains of PLUMMER's pill every other night; and, on the intermediate nights, a draught containing vin. colchici ʒi. magnes. sulph. ʒii. magnes. carb. ℈i. A lotion of camphor mixture ℥vi. with spirit of wine ℥ii. to the affected joints.) The case went on very favourably; the gonorrhœal discharge ceased, and the joints became better. At this time, mild in-

flammation of the conjunctiva came on in both eyes, and went off in three or four days with no other means than tepid lotions, the medicines above-mentioned being continued. After the application of a blister to the knee, the effused fluid was completely absorbed: the hands remained slightly puffed and tender, but these symptoms soon disappeared under the use of warm sea-bathing, and PLUMMER's pill.

CASE XIX.—*Mild gonorrhœal ophthalmia, with affection of the joints; subsequently, acute inflammation of the sclerotica and iris.*

Mr. C. ætat. 30, a gentleman of spare habit and pallid countenance, leading a sedentary life, has been married seven years. In the first three years after marriage, he had three attacks of discharge from the urethra: they were attended with little inconvenience, and went away under simple treatment. Four years ago, he had a more severe attack, attended with scalding. After three weeks, the left foot swelled, with great pain; and the glands of the groin were enlarged. He applied, at different times, about 200 leeches to the foot: ultimately, the discharge ceased, and the foot got well. These various attacks were not caused by infection.

In June, 1827, after violent pains in the head, he had a serious inflammation of the left eye. When I saw him, a few days after its commencement, there was acute inflammation of the chambers containing the aqueous humour, with severe pain of the eye and head, great external redness, and nearly complete loss of vision. The anterior chamber was filled with a light yellow semi-transparent substance, like jelly, completely hiding the iris and pupil. By cupping on the temple twice, leeching, and the free use of mercury, the effusion in the anterior chamber was removed, and vision completely restored. He had a suspicious connexion about the 27th of August. On the 7th of September, gonorrhœa appeared, which he treated by warm fomentations and aperients, until I saw him on the 14th, when there were redness and swelling of the glans, pain along the urethra to the bladder, profuse discharge, and severe scalding. I ordered him an active aperient, to be followed by the cubeb powder three times a-day, cold lotion, and rest.

Sep. 18th. The eyes began to be sore on the 15th, and they have gradually become worse. The bowels have been freely opened; the pain and scalding are nearly gone, and the discharge is much lessened. At present, there is mild catarrhal inflammation of the right eye. The conjunctiva is

bright red, but not over its whole surface, and it pours out rather copiously a yellowish white mucus; there is little pain, and no intolerance of light. Inflammation of similar character begins to shew itself in the left eye.—(Cupping on the right temple to sixteen ounces; opening medicine. Cold saturnine lotion. Leeches, if necessary.)

21st. The eyes are recovered, and no trace of disease remains except a little increased redness in the mucous membrane of the right eye-lids, with some whitish mucous discharge. The running from the urethra continues, but without inconvenience. There is slight swelling and redness with stiffness of the right fore-finger, and pain in the ball of the foot previously affected; severe pain in the left arm, affecting the shoulder and the rest of the limb, except the hand; also pain in one spot of the back. He is pale and weak.—(Decoction of bark with sulphate of quinine three times a-day.)

This gentleman went to the sea-side for the recovery of his health, which took place very slowly. He could not use the left arm in putting on his clothes till March, 1828.

In February, 1828, he had severe inflammation of the external tunics and iris, first in the left and then in the right eye. It was obstinate, and got well at last under the free use of mercury, which

disordered the bowels, and thus weakened him excessively.

Feb. 1829. He has resided some months in the country, has had no return of his complaints, and has regained his health and strength. The right fore-finger remains rather stiff.

CASE XX.—*Gonorrhœa, inflammation of the joints, and inflammation of the external tunics and iris of both eyes.*

A gentleman, 28 years of age, of spare habit and good constitution, who had always enjoyed good health, being at the time absent from his wife, had a suspicious connexion, soon after which discharge from the urethra came on, accompanied by all the symptoms of gonorrhœa. As this complaint was getting better, the right foot began to be painful: it was generally swelled, and slightly red on the back and at the outer ankle, and the pain became so considerable, that it could not be moved. Soon after, the knee of the same side swelled from inflammation of the synovial membrane with increased secretion into the joint. The local abstraction of blood with other corresponding local and general means were used. In a short time, both eyes became affected with inflammation of the sclerotic

coat and iris, which was slowly developed, but proceeded so far as to cause dullness of the iris, irregularity of the pupils from adhesions, slight haziness of the cornea, and dimness of sight. Cupping, leeches, and blistering in the first instance, and afterwards a course of PLUMMER's pill, removed the ophthalmic symptoms, and improved the state of the joints sufficiently to allow of removal into the country, where the progress of recovery was slow, so that the joints and the health could not be said to be completely recovered till about a year from the first attack. Although vision was completely restored, adhesions of the pupils remained: on one side, there was a single point of union between the pupillary margin and the capsule, while the pupil adhered, on the other side, by one-fourth of its circumference.

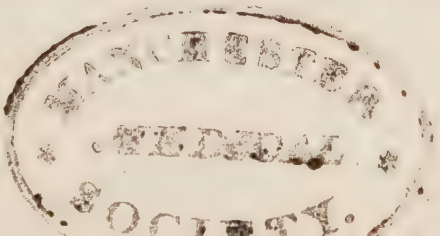
I have lately seen this gentleman again: he was recovering from a severe attack of inflammation in the right eye, which seems to have principally affected the iris. It required active antiphlogistic treatment, and the full influence of mercury. With this exception, he has been in perfect health since the termination of his former illness, a period of about four years. Indeed, he says that he has enjoyed much better health than before.

CASE XXI.—*Acute inflammation of the external tunics, with gonorrhœa.*

A gentleman aged 24, slightly made and short, with rather light hair and eyes, and good constitution, being at that time in good health, contracted gonorrhœa, of which the symptoms were extremely violent. In about three weeks, without any obvious cause, the eyes became inflamed; they were red, very painful, acutely sensible to light, and they watered copiously, particularly on exposure: there was also some mucous discharge, but not considerable. He lost 150 oz. of blood from the arm, and had about 230 leeches applied to the eyes, which recovered completely. The discharge from the urethra, which had lessened when the eyes became inflamed, ceased spontaneously during the treatment adopted for the latter affection. The preceding account is drawn up from particulars which I collected from the patient, who is a medical practitioner: the following is his own history of a second similar attack, which occurred twelve or eighteen months after the former.

"——— was attacked on the 11th May, 1826, with gonorrhœa, which proceeded in the usual way

for a fortnight, but with inflammatory symptoms rather higher than common, and more than ordinary constitutional irritation. Rest, gentle purging, and low diet were the means employed up to this time, when the conjunctiva of the eye suddenly became inflamed, and the patient feels certain in his own mind, that it was not from the application of the urethral discharge to the eye. In the former attack the same actions were induced with acute inflammation of the prostate gland, and violent pain after each fecal evacuation. In the present instance 18 oz. of blood were taken from the arm; the conjunctiva became clear, but the next morning, there being a relapse, twelve leeches were applied on the temples, and the action ceased. The gonorrhœal discharge now became much thinner, and less in quantity, without pain in making water: a mild astringent injection was used, and the patient went into the country. At this time, a month from the commencement, a cold was caught from getting wet feet; inflammatory actions were again induced in the eye, but of a very different character from the former. There was now great pain, excessive intolerance of light, profuse watering, and the diseased actions seemed altogether deeper seated. It now became what the patient believed to be rheumatic inflammation of the deeper seated tunics.



Bleeding from the arm to the extent of four pints in three days was resorted to, with temporary but no permanent relief. About 100 leeches were applied; colchicum and counter-irritation were tried, but without much benefit. At this time a metastasis took place from the eyes to the limbs; every joint in the body became more or less affected, and the right knee was distended by increased synovial secretion. The health was much deranged, and the strength greatly reduced. These actions alternated from the eyes to the limbs for a fortnight; the eyes then became perfectly well, but the patient continued crippled, and up to the 2nd of October could not walk half a mile. The treatment adopted during the affection of the limbs was, supporting the constitution with quinine and mild nourishment, attention to the bowels, sea air, and in the chronic stage warm salt bathing and friction. Very sensible benefit was derived from the latter. At the end of October these symptoms entirely left the patient, and he is now gaining flesh and strength daily; but after much walking feels a slight degree of aching about the insertion of the tendo Achillis, and in the soles of the feet. Even these sensations however have nearly vanished."

I saw this gentleman during the attack of the eyes last described: the affection was inflammation

of the sclerotica and iris. He continued well till the commencement of the winter of 1828, when, after taking cold, he had severe rheumatic affection of the joints, which confined him to bed for a month. The knees, ankles, and back of the neck were chiefly affected. He recovered from this completely. The eyes did not suffer.

CASE XXII.—*Inflammation of the internal tunics and iris of both eyes, with inflammation of the synovial membrane of the knee, and discharge from the urethra.*

A gentleman, 25 years of age, residing in the Temple as a student of law, who had laboured for some time under slight gonorrhœal discharge, was attacked with inflammation of both eyes. There was considerable external redness, pain, intolerance of light, and lachrymation; the three latter symptoms existing in a very high degree, and being very troublesome. The irides were dull, and the sight rather dim. In a few days the synovial membrane of one knee became inflamed, and the joint was considerably swelled by effusion into the cavity. Loss of blood by cupping and leeches, blisters, and suitable internal means were had recourse to for the eyes; after which PLUM-

MER's pill was given freely, with mild aperients. The eyes gradually mended, and had completely recovered in four or five weeks. The affection of the knee and of the urethra continued, and the health was much impaired: I therefore advised removal into the country, where he slowly recovered, but the complaints just mentioned were not completely removed when I saw him a year after.

CASE XXIII.—*Gonorrhœa; rheumatism, affecting the back and limbs; gonorrhœal inflammation of the external tunics of the eyes.*

Mr. F. 29 years of age, tall, with brown hair, and blueish-grey irides, has not had rheumatism, excepting slight occasional pains, which have neither confined him nor required medical treatment. He has had gonorrhœa once before the present attack; it was mild, and not attended with any affection of the joints or eyes. I saw him on the evening of Thursday, the 14th of December, 1829, when he had laboured under gonorrhœa for seven weeks: the symptoms had been mild, and the discharge, although lessened, continued. He began to experience severe pains, first in the back and sides, then in the lower limbs, about a fortnight ago. The eyes had become sore on the 13th, and

extremely painful in the night, so as entirely to prevent rest. Mr. Martin, of Speldhurst-street, had bled him from the arm to forty ounces in the morning of the 14th, and I found him in the evening much relieved by this evacuation. There was still considerable distension of the sclerotic vessels in both eyes, with pain, more particularly in the right, with intolerance of light and profuse lachrymation, especially on attempting to open the eyes. There was neither pain in the head, nor febrile disturbance.—(Poppy fomentations, aperients, saline and antimonial medicines.)

15th. Mr. F. has passed a tolerably comfortable night, but without much sleep. He complains of considerable pain in the right eye, which is the most inflamed.—(Twelve leeches to the right, eight to the left eye.)

17th. All pain was removed by the leeches. Mr. F. slept well last night, and the eyes have nearly recovered their natural appearance. The discharge from the urethra has increased.

Jan. 28th, 1830. Mr. F. confined himself to the house since the last date, lived abstemiously, attended to the state of the bowels, used a saturnine lotion to the eyes, which remained free from pain, but rather weak. They became worse yesterday, and he sent for me to-day. The inflamma-

tion had returned: there was a red zone round each cornea, a small white speck near the centre of the left, considerable pain, profuse lachrymation, and dimness of vision, particularly in the left eye. —(Twenty leeches to the eyes; a blister to the nape of the neck; a dose of calomel and jalap, and afterwards sulphate of magnesia in the infusion of roses; poppy fomentation.)

The eyes were much better the next day.—(Four grains of PLUMMER's pill night and morning; the fomentation and sulphate of magnesia continued.)

Feb. 6th. The eyes appear quite well; the increased vascularity and watering are gone, and vision is clear.—(Medicines continued.)

13th. The eyes continue quite well; there is still discharge from the urethra.—(Copaiba mixture.)

20th. The discharge is stopped; Mr. F. has discontinued the copaiba, and merely taken some opening medicine. The rheumatic pains are more troublesome; they are confined to the lower extremities, affecting more particularly the left hip and heel, and the right instep. They cause stiffness, but do not prevent exercise; there is no swelling of the affected parts.—(PLUMMER's pill continued; a draught every second day, containing some infusion of senna and vin. semin. colchici.)

27th. The pains are nearly the same.—(Conti-

nuation of the colchicum, with aperients ; removal to the sea-side, and warm sea-bathing.

At the end of a month this gentleman returned to London, and resumed his ordinary occupations.

CASE XXIV.—*Gonorrhœa followed by inflammation of the sclerotica and iris, and rheumatism.*

Mr. L. 29 years of age, with light brown hair and blueish-grey irides, has resided in Jamaica for the last nine years, living, for the first seven, in the mountainous cool part of the island, and enjoying excellent health ; during the last two years, he lived in Kingston. Before he went to the West Indies he had gonorrhœa, not followed by any rheumatic affection. Four years ago, he had gonorrhœa, in Kingston ; it was followed by rheumatism, which confined him to bed for a week, and affected the feet particularly. He again contracted gonorrhœa in May, 1829 : it lasted three or four months. Rheumatism appeared in a week, first affecting the back, then settling in the feet, more particularly in the right heel, where it has continued to the present time. The left eye became inflamed in November ; it was bloodshot, painful, and watered profusely : the access of light could not be borne, and it was necessary to have the room entirely darkened. Sight was dim, and the surgeon

said that the iris was inflamed.—(Leeches and blistering were employed, and the attack was ended in three weeks. Mr. L. left Kingston in December, 1829, and had, on the voyage, a violent inflammation of the right eye, similar in character to the former attack in the left. He was bled from the arm twice, and recovered in about three weeks.

During this attack vision was lost, and it remained so imperfect after the inflammatory symptoms had ceased, that he could not read the larger print of a newspaper. The power of the organ has since slowly returned, and the sight is now nearly perfect.

At present (February, 1830,) the eyes are free from disease; the iris of the left is darker-coloured than that of the right; the sight of the latter, which has been very dim, is nearly perfect. The irides act well, and are not adherent. There is pain in the back, chiefly at night; general puffiness at the back of the right heel, and for three inches above it, with stiffness and pain, and similar affection of the left in a slighter degree. He is able to walk, even for a considerable distance, and feels better in walking, but suffers afterwards. The appetite is good; he feels strong, and perfectly well, with the exception of the local inconvenience. —(Soap-plasters to the affected parts; vapour-bath

two or three times a-week. PLUMMER's pill; colchicum.)

May. The means before-mentioned have been persevered in, more or less regularly, and Mr. L. has been to the sea-side. He feels himself in perfect health: the heels are better, but the swelling is not much diminished, nor is the pain gone.

SYPHILITIC DISEASES OF THE EYE.

The affections which require notice under this head are, 1st, *Syphilitic Iritis*; 2ndly, *Syphilitic Ulceration of the Eye-lids.*

CHAPTER V.

Syphilitic iritis; iritis syphilitica, Beer.

The iris is liable to inflammation from various causes, of which syphilitic infection is, perhaps, the most frequent. The several forms of the complaint are alike in essential characters; they differ only in modifications of the phenomena, and in concomitant circumstances. Hence, a description of the origin, progress, and various effects of syphilitic iritis will embrace nearly all the points that could be included in a general history of the affection.

General character of Iritis.

The chambers of the aqueous humour, having a smooth membranous lining, which exhales and absorbs a watery fluid, present a striking analogy to the serous cavities. A similar correspondence is observed in their diseases; inflammation being generally attended in the former, as it is in the serous membranes, by the effusion either of albuminous fluid, or of coagulating lymph. The peculiar structure and the situation of the affected part will, perhaps, account satisfactorily for our not being able to recognise in iritis the four circumstances, the combination of which is usually considered to constitute the state of inflammation; viz. swelling, redness, heat, and pain. The inflammatory process, however, is unequivocally characterised by one of its effects; that is, by effusion from the vessels of the part. The new matter thus produced, which is found under various circumstances and appearances, is called indiscriminately by the not very precise term of *coagulable lymph.* Besides changing the colour and general appearance of the iris, it impairs and destroys its motions, rendering it at first sluggish and afterwards motionless; it causes adhesion of the iris to the surrounding parts; it alters the form and size of the pupil,

contracting or entirely obstructing that aperture, with more or less injury, or complete loss of sight. Thus iritis belongs to the class of adhesive inflammations. The increased action in the vessels of the part, by which the changes just enumerated are produced, is attended by an enlargement of the vascular trunks and ramifications on the sclerotic coat, and, consequently, by preternatural redness of the eye, to which are usually added increased sensibility to light, and lachrymal discharge.

Change of colour in the Iris.

The change of colour which the organ undergoes, is one of the most striking characters of iritis. A light coloured iris assumes, under inflammation, a yellowish or greenish tint;* occasionally, it is distinctly yellow; and, if the eye be blue, a bright green is sometimes seen. Generally, however, the tint, whether yellow or green, is of a dull and muddy cast, and darker than in the sound state.† In case of the iris being naturally dark-coloured, it presents, when inflamed, a reddish tinge. Together with these changes of colour, there is a complete loss of its natural brilliancy;

* See Cases XII., XIII., and XXI.

† See Cases I., VIII., XII., XIX., and XX.

it becomes dull and dark, and the beautiful fibrous arrangement, which characterises it in the healthy state, is either confused or entirely lost.* These changes, which are rendered particularly obvious by the contrast between the inflamed and the sound eye, commence in the pupillary margin. In an early period, the very edge of the pupil alone may be affected;† the internal circle then becomes altered in colour, and thickened; and afterwards, the change spreads gradually to the external or ciliary edge of the iris. This alteration of colour is produced by effusion into the texture of the organ; and the particular tint is such as would arise from blending with the natural colour of the iris that of the lymph, which is yellowish or brownish.

Effusion of lymph;—its various appearances.

The deposition of lymph takes place under various modifications in syphilitic iritis: 1st, Its effusion into the texture of the iris generally causes the changes of colour just described. 2ndly, It may be deposited in a thin layer, covering a larger or smaller surface. In this way, the edge of the

* Case I. † Case XI.

pupil first, and subsequently the lesser circle of the iris assume a reddish brown or rusty colour in the beginning of the affection.* The discoloured part has a rough villous appearance, when closely inspected, and we shall generally find, on careful examination, more particularly on looking at the part sideways, that slight elevation and irregularity of surface are produced by this new deposit. Sometimes the stratum of lymph has a light yellowish brown or ochrey tint, and a loose villous texture, rising into obviously prominent masses. The rusty colour is the most common, and is observed particularly in blue irides; the other is seen in the grey, or the mixture of grey and orange. This kind of deposit is generally confined to the inner circle of the iris; but the outer circle is usually, at the same time, more or less discoloured and dull. 3rdly, The lymph may be effused in distinct masses,† that is, in small drops or tubercles of a yellowish or reddish brown colour;

* Cases I., XI., XVI., XIX., and XX.

† Beer seems to regard these depositions of lymph as analogous to the condylomatous excrescences which appear on the organs of generation and the neighbouring parts in some venereal cases. I do not see the analogy. "When effective and appropriate treatment is not adopted at this critical period of the disease, other much more important phenomena present themselves, if it be a case of pure genuine syphilitic iritis. On the pupillary, or on the ciliary margin of the iris, or on both, there are formed reddish brown, knotty elevations, which become larger and larger, and appear, on close examination with a

sometimes they are of a bright red, and sometimes yellowish. They vary in size from that of a pin's head to a split pea. Often there is only one ; there may be two, three, or more. They may be deposited on the edge of the pupil, or in any part of the anterior surface of the iris. When the inflammation is very active, and has been neglected or improperly treated, the lymph is sometimes secreted so abundantly, as nearly to fill the anterior chamber ; in which case it has a light dirty yellowish tint, and often a looseness of texture, with semi-transparency. 4thly, Under violent inflammatory action, blood itself is sometimes effused, and is mixed, in a coagulated state, with the tubercular masses of lymph. I have seen such effusion of blood where the inflammation has not been of the most violent kind.* 5thly, Lymph may be poured out from the margin of the pupil or the uvea, so as to agglutinate them partially or generally to the capsule of the crystalline. A mass of lymph sometimes fills the pupil. More commonly, a thin greyish web or film stretches across the opening, which loses its clear black colour, and has a cloudy appearance. Lymph may be effused in considerable quantity into the

glass, very similar in structure to those condylomata, which are called cristæ galli."—*Lehre* b. i., p. 558. The appearances are well represented in tab. 2, fig. 4.

* See CASE III.

posterior chamber, and either make its way through the pupil into the anterior chamber, cause a bulging of the sclerotica, or penetrate that membrane, and form a tumour under the conjunctiva. The former occurrence is exemplified in Case II., and the latter in Cases II., and III. I have lately seen another instance of the last description, in a tailor, who had eruptions and inflammation of the eye after a chancre. These symptoms got better, but the eye relapsed in consequence of the patient resuming his occupation prematurely. I found the iris nearly in contact with the cornea; some red vessels were visible in it. The lower and inner half of the anterior chamber was filled with semi-opake light yellowish lymph; and a small portion of coagulated blood was seen near the ciliary edge of the iris. Lymph of similar appearance was partially visible behind the pupil, towards the nasal side. On the same side of the globe, the conjunctiva was raised into a tumour about the size of a pea; and, from the appearance of its contents, through the membrane, there could be no doubt that they consisted of lymph. Such was the state of the eye at the end of about three months. When I saw the patient again, after an interval of five or six weeks, the globe had begun to shrink: the conjunctiva oculi was intensely red, the cornea

opake, with a reddish tinge, so that lymph in the anterior chamber could be discerned through it with difficulty, and the protrusion of the conjunctiva continued of the same size, the brownish yellow lymph that it contained being more distinctly visible.

The external swelling in these cases has sometimes a yellowish appearance on its most prominent part, from which, in conjunction with the intense redness and violent pain of the eye, it has been supposed that suppuration of the globe had occurred; and the part has been punctured, under that notion. I once did this in the case of a lady, whose eye was destroyed by syphilitic inflammation: neither matter nor lymph escaped from the opening.* A case, in which a similar attempt was made with the like result, is related in the posthumous work of Mr. SAUNDERS,† and illustrated by a coloured figure of the organ. It may, I believe, be asserted, that suppuration never takes place in syphilitic iritis; that the inflammation, however violent, is always of the adhesive kind;

* The particulars are detailed by Dr. FARRE in a letter to Mr. TRAVERS:—See COOPER and TRAVERS's *Surgical Essays;* Pt. i. p. 93—96.

† *Treatise on some Practical Points, &c.* 2nd. ed. Pl. i. fig. 3; and p. 213.

and that the changes, to which it leads, are produced by the effusion of lymph.

There are two forms of effusion which I do not remember to have seen in syphilitic iritis. The first is the more fluid yellow substance, which sinks to the bottom of the anterior chamber, constituting hypopyum. The second is the bright yellow convex masses, arising out of the substance of the iris, which burst after a time, allowing the escape of a yellow matter which falls down in the anterior chamber.* Although this kind of abscess has generally been regarded as a characteristic of idiopathic iritis, I have seen it in two or three instances where it was doubtful whether the disease ought not to be regarded as syphilitic.

The effusion into the texture of the iris, which causes a general change in its appearance, and the reddish brown discolouration of the inner circle, with thickening of the pupillary margin, are generally the first alterations observed in this inflammation; they may take place separately, but are usually conjoined. In Case XI., which was of rather a chronic type, the greater circle of the iris retained nearly its natural colour, while the lesser was reddish brown or rusty-coloured. In

* These are well represented by Beer in his *Lehre*, vol. i., tab. 1, fig. 1.

Case XX., the whole iris, which was naturally blue, had become dark, dull, and muddy, while the pupillary margin and inner circle were of a rusty brown. As the inflammation proceeds, the tubercular masses appear: thus in Case XVI. the whole iris was dull and discoloured, the inner circle being of a rusty brown, and a large mass of reddish lymph was deposited on it; in Case XX., the irides were so discoloured, dark, and muddy, that their natural appearance could not be estimated; the inner circle rusty brown; the edge of the pupil thick and villous; while about one-third of each was covered by a prominent mass of bright reddish brown lymph. In the most violent degree, large effusion takes place into the anterior, or posterior chamber, and the pupil.

The progress of the affection is clearly marked in Case I.; we seldom see it so distinctly, as the complaint is usually arrested by the treatment we adopt. In this patient, the iris, at the end of nine days, and on the 16th August, had completely lost its blue colour, and had a dull, muddy appearance, without any trace of the natural fibrous structure: the inner circle was reddish brown, while, in the outer, this tint was mixed with a dull yellowish colour. On the 20th, a mass of light-coloured lymph was effused, and the general discolouration

was more striking. Another effusion took place on the 27th. The two portions were united on the 30th, and increased to one light brownish yellow deposition, covering the lower half of the iris. On the 21st Sep. the inflammation, which had been removed, recurred, and lymph was again effused, increasing in quantity to the 25th. In the following March, nearly the whole anterior chamber was filled with lymph. Since the several modifications of effusion depend on the degree of inflammation, and not on any difference in the nature of the process, we see them combined together in greater or smaller number according to the stage which the affection has reached, and the effect of the measures which have been adopted. Occasionally, however, we may observe that the inflammation, although violent and of long standing, is characterized by general discolouration, alone,* or with the addition of a thin stratum of lymph on the inner circle of the iris;† while, in some instances, the tubercular deposition of lymph takes place with hardly any other observable change in the iris.‡

* Cases XII., XIII., XIV., XXI.

† Cases XI. and XX.

‡ Cases X., XV.*, and XVII.

Motions of the iris, and state of the pupil.

The motions of the iris must be seriously impaired by the changes just described, more particularly by the interstitial effusion of lymph. It moves sluggishly at the commencement of the inflammation; and, when effusion has taken place, its movements are entirely suspended, the preternatural connexions by adhesion concurring with the change of structure in producing this effect. The pupil, consequently, cannot exhibit the ordinary variations in size; it is contracted, and it becomes smaller and smaller in the progress of the affection. At the same time the effusions of lymph and the adhesions change the figure of the opening, rendering it angular, and often extremely irregular. Together with other changes, the pupil sometimes undergoes an alteration in situation, being apparently drawn upwards and inwards, or towards the root of the nose. It may deviate in other directions. The margin of the aperture is thickened, and has a villous or spongy appearance in the beginning of the disease, presenting a strong contrast to the thin, sharp, and well defined edge which naturally belongs to it. The effusion of lymph into the aperture, which has been already noticed,

destroys its clear black colour, and gives it a dull, cloudy appearance.

Increased redness of the eye.

There is more or less external redness of the eye, in the form of a red band round the cornea, deeper-coloured in front, and gradually shaded off behind; the circumference of the globe being comparatively clear. In the commencement of the affection, the anterior part of the sclerotica exhibits a pale pink redness, and the vascular trunks, which lie on this membrane are seen, of a deeper pink tint, under the conjunctiva which is then unaltered.* The pink tint of the inflamed sclerotica and of the trunks lying on it, which is observed in all inflammations of the membrane, is probably owing to their being covered by, and consequently seen through the conjunctiva. These vessels advance in nearly straight lines from the circumference of the globe, ramifying towards the front, and are lost in the pink zone. The redness of the sclerotica, and the distension of its trunks increase as the affection proceeds. The vessels of the conjunctiva soon become partially enlarged, towards the anterior part of the eye; they are

* See Case XI.

distinguished, by their scarlet colour, from those lying on the sclerotica; they subdivide minutely, and their fine ramifications, which are very closely arranged, combine with the pink redness of the sclerotica to form the vascular zone round the cornea. The minute vessels terminate abruptly at the edge of the cornea, under which they probably pass to the iris: the limits of the zone are, therefore, clearly marked in front, while it is gradually shaded off behind; it differs in breadth in different instances. It is of a deep vivid red in acute iritis, when fully developed, the circumference of the globe being paler as the conjunctival vessels are less distended.* In iritis of the most violent kind, however, all the external vessels of the globe are equally affected, giving to the entire surface an uniform fiery redness.†

The red zone lasts as long as the inflammation of the iris continues, and disappears when that is removed; its origin, progress, degree, and termination manifestly depending on the iritic affection. The whole iris is usually the seat of inflammation, but not necessarily so; one point only may be inflamed, and then the redness of the sclerotica is confined to the part opposite to the inflamed por-

* See Cases I. and XIX.

† Cases XIV. and XV.

tion of the iris ;* again, when the iris is inflamed generally, it sometimes happens that the excitement is more violent in one part, and the external redness will be greater opposite to that part.†

State of the cornea and aqueus humor.

The phenomena of the disease shew that an intimate vascular connexion exists between the sclerotica and the cornea and iris, although we do not know much about the arrangements or communications of their vessels in the healthy state of the organ. Hence it happens that active inflammation in either of the latter parts causes vascular distension and redness of the sclerotic, while inflammation originating in that membrane soon extends to them. Hence, when the sclerotica is inflamed, as it is in an acute attack of iritis, change may be anticipated in the state of the cornea. General haziness occurs at first ; this is aggravated, as the case proceeds, and nebulous opacity comes on when the inflammation is violent and long continued. This change affects the cornea generally, in most cases ; there may be more considerable partial opacity with the general haziness or nebula. Some-

* Case X. † See Case III.

times, but rarely, there is ulceration of the cornea.* These corneal affections add to the imperfection of sight caused by the changes in the pupil. Under the existence of inflammation in the surfaces, which secrete the aqueus humor, we might expect that this fluid would be altered in its properties, and become turbid. We have, however, no clear evidence on this point. In considerable and active inflammation of the iris, with the cornea remaining clear, we can see no change in the aqueous fluid: when the cornea becomes hazy or opake, we can hardly expect to discern it.

Intolerance of light and pain.

There is generally some, and often considerable intolerance of light in the beginning, and in the early progress of the affection, together with increased lachrymal discharge, the tears flowing freely on exposure of the eye to light. These symptoms are probably owing to the participation of the sclerotica in the affection; and they con-

* I have not seen the appearances described by BEER in the following sentence: "Lardaceous (speckige) ulcers frequently appear at the same time both on the cornea and on the white of the eye; while gummata, or true tophi, which quickly pass into the state of ulceration, form on the edge of the orbit, particularly in the neighbourhood of the frontal sinus and at the root of the nose."—*Lehre*, v. i. § 550.

tinue, although the quantity of light admitted into the eye is constantly diminishing, in consequence of the changes produced in the pupil and the cornea. This is exemplified in Case VIII. and more particularly in Case XV., where distress was experienced on approaching the light, although it was doubtful whether the patient could distinguish light from darkness, except from this circumstance.

There is generally more or less pain from the commencement, the degree varying according to the acuteness of the attack. It may be considerable, with burning sensation and tension; deep-seated in the globe and orbit, extending to the head, and so severe as to prevent rest entirely. Thus, in Case XV., there was no rest for three or four days in consequence of unremitting and most severe pain in the organ, and over the brow, and intense general head-ache. The inflammation was very acute, and the suffering nearly equal in Case XIV. On the other hand, it may be slight, even when considerable effusion of lymph and loss of sight have occurred. In Case III. the iris of the left eye was in contact with the cornea, the sclerotica was bulged by effusion of lymph behind the iris, and sight was destroyed; these changes, however, had been produced by inflammation of chronic character, and accompanied with so little pain, as not to in-

terrupt rest. In Cases XIX. and XX. the local appearances were those of the most acute inflammation: in the former there were large effusions of lymph in both eyes, with the highest degree of vascular turgescence: yet these patients did not complain, and even when questioned said that they had no pain. In Case XV.* although a mass of lymph was effused on the iris of the right eye, the patient not only had experienced no pain in the organ, but was not even aware that any disease existed in it. Patients often complain of great pain in the temple, brow, or cheek, as if it were seated in the bone. In syphilitic iritis the suffering is chiefly at night: the patient may have hardly any uneasiness during the day, even although the attack be severe, and the external redness very considerable; but, as evening comes on, or soon after bed time, the pain, which is usually seated in the brow, begins, and arrives at such a pitch as to prevent rest, going off again completely towards morning*. Where pain exists constantly, there is a marked exacerbation at night†.

Dimness of sight occurs in the commencement of iritis‡. The changes in the pupil and cornea render

* Cases XII. XIX.

† See Cases I., VII., X., XI., XIII., XIV., XVI. XXIV., XXVIII.

‡ Cases XXI. and XXVII.

vision more and more imperfect, so that the patient ultimately cannot see the largest print, discern objects*, or even distinguish light and darkness†.

General symptoms.

The constitutional disturbance is very various. Iritis of the most acute kind is attended with severe febrile symptoms; with head-ache, restlessness, and want of sleep; with full and strong pulse; white tongue, thirst, loss of appetite, and costiveness‡. Often, however, even in cases that would be termed acute, such symptoms exist only in a slight degree§, or are entirely wanting¶.

Progress and extension of the inflammation.

If the inflammation, having attained its full development, should continue, the iris swells, or appears to swell; that is, it approaches towards the cornea, becoming convex in front, diminishing the anterior chamber, and sometimes having its surface puckered and irregular. Is this an actual

* Cases X., XIV., XX., XXIII., XXIV., XXVIII.
† Cases III. and XV.
‡ Cases XIV., XV.
§ Case XIX.
¶ Cases XII. and XX.

swelling of the iris, real thickening of the part from interstitial deposition? or mere protrusion by the swelling of parts behind, by the effusion of lymph, or by aqueous secretion? Dissection has not yet elucidated these questions.

If the progress of the affection be not checked, it does not remain limited to its original seat in the iris. At first it appears on the very border of the pupil; then shews itself on the inner circle; and subsequently extends to the outer circle, presenting the combination of symptoms already described. Supposing it to go on without interruption, it passes from the ciliary circumference of the iris to the corpus ciliare, the choroid coat and retina, with increase of pain and fever, and ultimately with irrecoverable loss of vision, from change of structure in the retina. At the same time, the mischief is propagated forwards; the cornea becomes more opake, the conjunctiva more inflamed, and great external redness is added to all the other symptoms, so that the case, which was at first simple iritis, becomes ultimately ophthalmitis, or inflammation involving the external and internal tunics generally.

The question naturally occurs, whether the inflammation, when thus propagated to the posterior tunics, presents in them the same characters as in

its original seat; that is, whether it is attended by effusion of lymph? I have never had an opportunity of dissecting an eye in this state of disease, nor are any such dissections recorded. The escape of lymph through the sclerotica, which has been already mentioned, and the bulging of the globe at some distance behind the cornea, in cases where it is disorganized by this inflammation, which certainly is not owing to suppuration, would lead us to suppose that the question ought to be answered in the affirmative. Sometimes the internal tunics suffer generally from the beginning; and vision is impaired, although the pupil may remain clear. The term iritis, implying that disease is confined to one texture, is not properly applied to such cases.

Acute and chronic iritis.

Iritis, like other inflammations, varies in rate of progress and degree; and these differences may be loosely characterised by the epithets acute and chronic*. Serious mischief may occur in a few days; or weeks may elapse without any permanent change of structure or injury of sight. In Case XIV.,

* Cases I., X., XII., XIV., XV., XVII., XIX., XX., XXV., XXVII., XXVIII., are examples of acute; III., VIII., XI., XVIII., XXI., of chronic iritis.

at the end of four or five days, the natural colour of the iris was completely lost, the pupil filled with lymph, and vision reduced to the mere power of distinguishing light from darkness. In Case XV. within a few days the iris had become so dark and discoloured, that its natural colour could not have been determined; a mass of reddish brown lymph was deposited on it; the pupil was irregular, contracted, and motionless; and it was doubtful whether the patient could distinguish light and darkness. The blood drawn from the arm in both these cases had a firm buffy coat. In Case XVII. a tubercle of lymph was found on the iris at the end of five days: in Case X. there were two masses of lymph on the iris one week after the first perception of uneasiness; and, within the same time general discolouration of the iris occurred in Case XII. In Case XXVIII. one fourth of the iris was covered with lymph, and vision was lost in eight days; and effects nearly similar were produced in eleven days in Case XXIV. In Case XI. the iris was generally discoloured with its inner circle of a rusty brown, in three weeks. In Case VIII. vision was not seriously impaired at the end of six weeks, although the iris was discoloured, and two masses of lymph were effused. In Case XXI.

there was discolouration, but the patient could still make out print after six weeks. In Case XVIII. the disease had lasted nine weeks, yet tolerable vision was recovered. Sometimes the complaint is characterised by intense redness of the eye, acute pain, and fever; while in others the organ retains its natural appearance, and the patient is hardly aware that disease exists. This mild form of the affection was exemplified in one of the eyes in Case III., the other eye having been more violently inflamed, with entire loss of sight. The subject of Case XV.* had iritis of the left eye, in a rather acute form. I observed in the right eye a stratum of light yellowish lymph of loose texture, covering one half of the inner circle of the iris, and distinctly prominent towards the middle: there was no redness, no pain, nor diminution of sight, and the patient was not conscious that his eye was affected.

Extension of inflammation to the posterior tunics is most to be feared in acute iritis; but the chronic form of the disease is not exempt from this danger. The milder degree of inflammation may equally creep on from the iris to the ciliary body and adjacent parts, and produce in them changes of structure capable of injuring or destroying sight.

Effects of iritis.

The effusion into the texture, or on the surface of the iris, like the interstitial deposition which produces swelling of other inflamed parts, is removed by absorption when the inflammation is at an end. Under favourable circumstances, that is, when the inflammation is recent, and proper treatment has been adopted, the iris may be completely restored, recovering its natural colour, brilliancy, and power of motion. This restoration may take place equally whether the organ should have been simply discoloured, or effusion of lymph should have taken place, either in a thin stratum or in tubercular masses.

Adhesions of the pupil.

The lymph effused in iritis, like that poured out on the surface of an inflamed serous membrane, soon becomes organised, producing new formations of a permanent character. Thus, when the inner circle of the inflamed iris has regained its natural appearance by the progress of absorption, the edge of the pupil is found preternaturally fixed to the crystalline capsule. It may be closely attached at

one or more points, the rest of the circle being free. More commonly the connexion is effected by slender threads, long enough to allow some motion; there may be many of these fringing the whole opening, or only one. Such adhesions are dark coloured; that is, they are of the same colour as the edge of the pupil or the uvea, partaking, like other adventitious formations, of the nature of the surface which produces them. Under suitable treatment, in an early stage, adhesions of the pupil are sometimes detached, leaving behind, at least in some instances, black marks on the capsule, which I believe are permanent. These marks escape notice in consequence of the blackness of the pupil; they are, however, sometimes detected on close examination with a strong light on the eye. I have seen a complete circular series of such marks, which I discovered while accidentally examining the eye with the sun shining upon it. The patient had laboured under iritis; and the pupil, which had been fixed to the capsule in its whole circumference, was completely liberated by the means employed. A tubercle of lymph effused on the edge of the pupil will produce a broader adhesion, fixing, perhaps, one third or one fourth of the circle. The changes now described must necessarily affect the figure and motions of the pupil: they often render

it very irregular, and impair or destroy its motions. Mere alterations of figure are not injurious to vision; which is just as good with the most irregularly shaped pupil as with a circular one; and we often see perfect vision with great and permanent contraction of this aperture. It must be understood, of course, that the retina is uninjured, and that the pupil, however irregular or small, is clear.

Change of texture and colour in the iris.

When considerable general effusion has taken place, and has been allowed to proceed uncontrouled for some weeks, permanent change is produced in the texture of the iris, causing alteration of its colour, diminution of its lustre, and confusion of its fibrous structure, so that it presents a striking contrast to the sound iris. Sometimes it is marked with small dark specks; sometimes it has, almost throughout, a dull leaden hue. These organic changes concur with the adhesions of the pupil in lessening or destroying the motions of the part.

Adventitious membrane in the pupil.

If the lymph thrown out into the pupil, and lying on the crystalline capsule, be not soon absorbed, it becomes organised, and forms an opake adventitious membrane adherent to the capsule and to the pupil, and corresponding in size to the dimensions of the pupil at the time of effusion. The opacity of this new production is greatest in the centre, and gradually shaded off towards the circumference. In the contracted state of the pupil, it fills the whole aperture; but, when the edge of the iris is withdrawn, it is surrounded, partially or entirely, by a clear black margin, and the iris is found to be attached to it by adhesions, which may be either close or in the form of short black threads. These adhesions sometimes divide the clear portion of the pupil into small roundish or irregular apertures. In such cases, the pupil does not change under variations in the quantity of light; it is usually necessary to apply belladonna in order to expose the clear part of the opening, and the adhesions which connect its margin to the adventitious membrane. If the effusion should have occupied the pupil and margin of the iris only partially, the adventitious membrane will be found

towards one side instead of the centre, the edge of the pupil being fixed to it, and thus drawn out of its regular line, while the rest of the opening is natural. This state, which has been called imperfect closure of the pupil *(atresia iridis imperfecta,)* is attended with greater or less injury of sight. Although the patient may have no useful vision when the aperture is contracted, he may be able even to read if a little enlargement can be procured by the influence of belladonna.

Closure of the pupil.

When large effusion has taken place into the posterior chamber, it is organised into a dense opake substance, to which the entire circumference of the pupil is closely fixed, the opening itself being greatly contracted, or actually shut, and generally removed more or less from the centre of the iris. By this complete closure of the pupil, *(atresia iridis perfecta,)* the communication between the two chambers is destroyed, and the passage of light into the eye, almost entirely intercepted, with corresponding loss of sight. By means of the adventitious membrane thus produced, the uvea may be rendered generally adherent to the crystalline capsule; and there may be a large anterior

chamber: or the iris may have been previously pushed forwards and in contact with the cornea, so as to destroy the anterior chamber.

Atrophy of the globe, and fluidity of the vitreus humor.

When large effusion has occurred into both chambers, and when lymph has been deposited behind the iris in such quantity as to cause bulging of the sclerotica, or to escape through that membrane and raise the conjunctiva into a swelling, it will be completely removed by absorption, when the inflammation has ceased. But the internal parts of the globe are so altered in structure, that it becomes flaccid, and reduced in size; *(atrophia bulbi.)* This change sometimes takes place after complete closure of the pupil. A fluid state of the vitreus humor *(synchisis)* and consequent softness of the globe may take place after acute syphilitic iritis of long standing, without shrinking in size or atrophy.

Impaired vision.

When the inflammation has extended to the posterior tunics, although it should have been ar-

rested by proper treatment, it often leaves behind imperfection of sight in various degrees; and this may take place in cases of chronic,* as well as of acute character. In Case VI., where the inflammation was treated rather actively, and lasted a month, several thread-like adhesions of the pupil were produced, and the opening was contracted, but quite clear. The patient could read in a good light, but found a mistiness and dimness before the eye. Both eyes were affected in Case III., the inflammation being of a decidedly chronic character in the right, with very slight redness, and no heat or pain. At the end of ten weeks the pupil, which was clear, was fringed by short dark adhesions, and the patient could only make out large print with difficulty. His sight was afterwards improved, but he could not read a small print by candlelight. In Cases IV. and V., adventitious

* I saw a remarkable instance of this, in a case of idiopathic internal inflammation. A young lady, of great information and accomplishments, who habitually devoted a large portion of her time to music, reading, drawing, and fine needlework, found, on looking at a picture with one eye shut, that she had lost the sight of the other. She had experienced no uneasiness in it; there had been no redness, nor any other change to attract the notice of her friends. I found the iris slightly altered in appearance, and the pupil fringed with slender dark adhesions; the aperture itself was clear, but vision was extinct. She afterwards lost the other eye from repeated attacks of chronic internal inflammation; in this instance, however, the local inflammatory symptoms, although mild, were clearly marked.

membranes were formed in the pupils, leaving, however, in the dilated state, sufficient marginal openings of clear black colour for the purposes of vision: one of these patients could distinguish the letters of middle-sized print; but vision was much more imperfect in the other.

After the apparent cure of the disorder, the eye sometimes remains preternaturally sensible to external influences. It will become red, and water, with some pain, on exposure to cold and damp, or after exertion. This is more particularly observed when the inflammation has been considerable, and has lasted long, in consequence of neglect or injudicious treatment; and thus the patient may experience repeated and troublesome relapses of the affection.*

Diagnosis.—The tubercular depositions of lymph, the reddish brown discolouration of the iris on its inner circle, the nocturnal exacerbations of pain, which is felt either in a much slighter degree or not at all during the day, the angular disfiguration of the pupil, and its displacement towards the root of the nose, together with the previous occurrence of syphilis, and, in most instances, the concomitant existence of other syphilitic symptoms, clearly

* See Cases XV and XVIII.

designate this kind of iritis and distinguish it from other forms of the affection. The local symptoms alone are not sufficient, in all cases, to establish the distinction; for we sometimes see merely a general discolouration of the part, such as might occur in idiopathic or arthritic iritis. Thus, in CASE XIII. the complaint exhibited all the characters of the latter affection, including the white ring between the red zone and the margin of the cornea; and the state of the iris was similar in CASE XXI. Under such doubtful appearances, the age of the patient, with the previous and concomitant circumstances, will not fail to elucidate the nature of the affection. In idiopathic iritis there is either no distinct deposition, or it occurs as a bright yellow elevation rising out of the texture of the part, increasing to a certain size, and then breaking so as to allow the escape of a yellow matter, which sinks to the bottom of the anterior chamber. Such yellow abscesses are not seen in syphilitic iritis. Lymph is effused from the margin of the pupil in the arthritic species, but not deposited in a distinct form, and the adhesions are generally white. Both in the idiopathic and arthritic iritis the pupil generally retains its circular figure and central position in the iris.

Although the effusion of reddish, brownish, or

brownish-yellow lymph on the iris, in the adult, clearly shews the case to be venereal, I have seen analogous appearances in several instances, both of young children and infants, in whom no suspicion of syphilis could be entertained.

Causes.—In this respect syphilitic iritis must be viewed in the same light as other secondary symptoms. The only reason we can assign for its occurrence is the previous existence of primary syphilis, or, to use the ordinary language, the contamination of the body by the venereal poison. When we come to understand the nature and operation of that change, to which syphilitic affections of the throat, skin, bones, and other parts owe their origin, we shall probably be able to explain the occurrence of syphilitic iritis. It may occasionally happen, as some have represented, that cold, wet, and other external influences will immediately excite the complaint in those who are already disposed to it by having previously contracted syphilis ; but it appears, in most instances, without any assignable external cause.*

* According to Beer, syphilitic inflammation of the eye may arise in two ways. External influences, even though slight in degree, and such as probably would be uninjurious to a person in good health, will, he says, excite inflammation of the eye in a syphilitic person. This may, at first, be a rheumatic or a traumatic inflammation, and may be transformed, in two or three days, into syphilitic iritis. Or, particularly if the constitution be thoroughly affected with lues, syphilitic iritis appears at once under

Other concomitant syphilitic diseases.

Although sometimes occurring alone,* it is more commonly accompanied by other secondary symptoms, such as eruptions, ulceration of the throat and mouth, pains of the limbs, and swellings of the periosteum.† It is seen in conjunction with papular,‡ scaly,§ tubercular,‖ and pustular¶ eruptions. As it belongs to the earlier class of secondary syphilitic affections, it sometimes shews itself, like the other symptoms of that class, before the primary disorder is cured.**

Syphilitic iritis in infants.

It is but rarely seen as a symptom of syphilis in infants: numerous children labouring under this disease have come under my observation, but iritis has occurred in two instances only. In one of them, which is appended to this paper, Case XXIX., there were excoriations and ulcerations round the

its proper characters. This last he calls *primary*, or *genuine*, the former *secondary* syphilitic iritis.—*Lehre*, § 547-8. I have not seen this metamorphosis of disease, nor do I believe that there is any ground for the distinction.

* Cases III., VI., VII., VIII., IX., X., and XIII.

† Cases II., and XXVI.

‡ Cases I., XI., XII., XIX., XX., XXI., XXII., and XXIII.

§ Cases XIV., XV., XVI., XVII., and XXIV.

‖ Cases II., V., and XVIII.

¶ Case IV.

** Cases V., XX., XXV., XXVI., and XXVII.

anus. The iris had lost its brilliancy, and become dark-coloured; the pupil was slightly contracted, and there was some redness of the sclerotica. On the other case I was consulted by letter from the country. The father had had primary venereal sores before marriage. In a few weeks after birth, the child had an eruption all over the body, wasted, and seemed on the point of dying. It got well under the use of mercury in very small quantities. In a few weeks more, severe inflammation of the eyes came on: mercury was employed in the same manner; the inflammation was arrested, but the child remained blind. I saw it some weeks after. Both pupils were fixed, and moderately contracted. An opake body, which was not a cataract, was seen behind one; the other was clear. Both eyes were blind.

I have seen one instance in which syphilitic iritis, or rather syphilitic inflammation of the internal tunics occurred as a secondary symptom, in conjunction with scaly eruption, after the infection of a chap on the hand by the contact of discharge from a sore in delivery.

Whether iritis is caused by the use of mercury.

An opinion has partially prevailed that the use of mercury is capable of producing iritis. Some

have considered that syphilitic iritis, as well as other secondary symptoms, either are rendered more frequent and severe by the employment of this remedy, or owe their very existence to it; while others have spoken of iritis generally as being caused by it. I have seen no instance of iritis, of whatever kind, in which there has appeared to me any reason for ascribing the occurrence of the complaint to this cause. In nine* of the cases related in this paper, iritis came on where no mercury had been taken previously to its appearance; and in some of them the complaint was severe, and produced consequences injurious to vision: in others,† mercury had been administered only in small quantity, and the mouth had not been made sore; and there is not one in the whole list in which the remedy had either been employed for a long time, or affected the system severely. Iritis occurred in some of the cases which had been treated by Mr. Rose and Dr. John Thomson without mercury.‡ Dr. Ekström, of Stockholm, informed me that he had seen many similar instances in the patients of an institution where the use of mercury in syphilis

* Cases II., IV., V., XI., XII., XIII., XVI., XVII., and XXVI.

† Cases I., III., VI., X., XV*., XIX., XX., XXIV., and XXV.

‡ *Medico-Chirurgical Transactions*, vol. viii. p. 361., and Cases XVII., XVIII., and XIX.—*Edin. Med. & Surg. Journal*, vol. xiv. p. 91.

had been entirely abandoned for a long time. Iritis took place in a woman, who had contracted syphilis from suckling a diseased infant, and had taken no mercury.*

Prognosis.—This is favourable when the affection is recent, and confined to its original seat in the iris. Continuance of the inflammation is attended with increasing contraction of the pupil, with augmented effusion of lymph, and with its organisation into those adhesions and adventitious opake substances, which, together with the contraction of the pupil, so frequently injure or destroy sight. In the progress of the affection, further injurious consequences arise: the inflammation extends to the posterior parts of the globe, including the retina, with the greatest danger to vision; also to the cornea, which may become more or less opake.

* *Medico-Chirurgical Review*, August, 1829.—The patient had suckled the child of another woman, who was known to have had the venereal disease. The child, about six weeks after birth, had ulcers of the mouth and blotches on the trunk, and when in this condition it was applied to the patient's breast. Soon afterwards, a sore formed near the nipple, with a smooth and slightly excavated surface, thin discharge, indurated basis, and great pain: a gland in the axilla swelled to the size of a chesnut. In seven weeks, no mercury having been used, either internally or locally, iritis of the left eye came on. It yielded speedily, as did the primary symptoms, to calomel and opium, under which the mouth became sore.

We need not entertain apprehension for the result, if the changes, however considerable, are confined to the iris. The inflammation may be arrested; and then extensive alterations of colour, large effusions of lymph, and great contraction of the pupil will be removed. The mere quantity of effusion is of little moment.

Before pronouncing the prognosis, we should closely examine the organ in order to decide the question whether the posterior tunics are involved. The state of vision alone will not determine the point: the changes in the cornea and pupil may impair sight considerably, so that the patient may be unable to distinguish objects, and may be reduced to the mere power of discriminating light and darkness in cases where the function of the organ is ultimately restored. Indeed, a considerably impaired state of vision is sometimes found where the cornea is clear, and the pupil not visibly obstructed, and yet the sense is recovered; so that even affection of the retina is not necessarily a ground of unfavourable prognosis. The case is hopeless when we find a change of colour in the whole iris, with considerable contraction of the pupil and an opake substance in it, with intense external redness, great and deep-seated pain, and complete extinction of sight. I have not seen

vision recovered when large effusion has taken place behind the iris, more particularly if it should have caused bulging of the sclerotica, or have made its way through that membrane. Great contraction and general adhesion of the pupil, a protruded and puckered state of the iris are very unfavourable circumstances. Considerable imperfection of sight may be removed if the inflammation be recent, but not if it be of long standing. Cases differ so much in the degree of disturbance, and the rate of progress, that we can hardly speak of definite periods. We confidently expect to arrest the inflammation and remove its effects when iritis has lasted a fortnight or three weeks; and we often succeed in cases of a middle kind as to severity, at the end of a month. In Case XXI., where the inflammation had existed six weeks, and the patient could not make out large print without much difficulty, complete and permanent recovery was effected. In Case VIII., where inflammation of active character had gone on for six weeks, the recovery of sight was nearly perfect. Much improvement of sight was accomplished in the right eye of the patient whose case is No. III., although the affection had lasted nearly ten weeks. We must take a combined view of the activity and duration of the inflammation before we decide on

the probable termination. The power of treatment is very great: much good is often accomplished in cases that seem almost desperate: we must therefore be on our guard against delivering hastily an unfavourable opinion.

Treatment.—The three principal objects which we have in view, namely, to arrest the inflammation of the organ; to prevent the further effusion of lymph, and promote the absorption of that which has been already poured out; and to prevent the contraction of the pupil, may be accomplished by antiphlogistic measures, by the administration of mercury, and by the use of belladonna.

Antiphlogistic means, particularly loss of blood.

It can hardly be necessary to enforce at length the propriety of resorting immediately to active treatment when an inflammation of so violent a character as syphilitic iritis frequently is, attacks the delicately organised internal parts of the eye. Whenever, therefore, the inflammation is acute, with great vascular congestion, severe pain, and constitutional disturbance; when we have reason to fear that inflammation may extend from the iris to the posterior tunics, and more particularly if we should suppose that such extension has already

occurred, we must immediately adopt the most active antiphlogistic treatment in all its parts; that is, we must bleed generally and locally, repeating the evacuation until the inflammation is subdued, clear the alimentary canal by an active purge, following it by saline aperients and the tartrite of antimony, put the patient on low diet, guard the eye from all injurious external influences, and keep the body at rest as well as the affected organ. The acute form of the complaint, which requires this decided treatment, is exemplified in Cases I., XIV., XV., XIX., XX., and XXVIII. When the disorder is less violent, the local abstraction of blood by cupping or leeches will supersede the use of the lancet. The latter, however, may be advantageously employed in many instances, which, from the duration of the complaint and the local symptoms would not be considered as of the most acute kind: Case XIII. is an example. General depletion may be had recourse to with propriety whenever there is feverishness, particularly if the pulse be full and strong. I must observe, however, that the absence of such symptoms does not contra-indicate the practice. If the local complaint be serious, and threaten mischief to the organ, the treatment may properly begin with loss of blood from the arm, unless there should be objections in the particular

circumstances of the case; in the progress of the affection we should not hesitate to repeat the depletion whenever the state of the part, or of the system, or both call for it.

Local applications.—These cannot be of much service in so serious an affection of parts comparatively internal: tepid washes, such as the poppy fomentation, will perhaps be the most soothing to the patient, who may, however, employ cold applications, if he finds them more agreeable.

Blisters.—The use of blisters is not proper in this active state of the inflammation; they often add to the excitement, instead of lessening it, particularly if they are applied near to the inflamed organ*.

Mercury.—The measures now described lessen the violence of the inflammation, remove or greatly diminish the agonising pain in the part and in the head, moderate the accompanying general excitement, and thus give great relief to the patient. But they fail, at least in many instances, to accomplish the second object. We frequently see, after large and repeated bleeding, that the action of the capillary vessels, the essential agents of the mischief, continues; the

* See Case I.

effusion of lymph goes on, and leads to the alterations of structure, which have been already described. Some further power is necessary to put a stop to this disorganising and destructive process, and that power is afforded by mercury, not however when employed as a purge merely, nor in those small doses, given at considerable intervals, which have been called alterative, but in such a way as to produce quickly a decided effect upon the system. The mercurial action, when thus effectively and speedily produced, cuts short the inflammation, and puts a stop to the effusion of lymph, when that which is already effused will be absorbed; thus, it not only prevents further changes, but remedies those already produced. The redness of the eye diminishes, and sudden relief is experienced by the patient; the lymph, in whatever form it may have been effused, begins to lessen, and is soon removed; the distinct masses are absorbed; the adventitious layer is removed from the pupil; the colour of the iris is restored last. The red zone round the cornea begins to look pale, and soon disappears. Small doses of mercury are quite inadequate to the production of these changes, and I do not know how it has happened that such doses have been called alterative, for they certainly will produce no alteration in a decided inflammatory attack of this

kind; while, on the contrary, if any such effect is to be caused by mercury, it must be employed freely. After the loss of blood, either from the arm, or locally by cupping and leeches, and after clearing out the bowels by purgative medicines, the use of mercury may be commenced; and the best way of employing it is in the combination of calomel with opium, two, three, or four grains of the former with one-fourth, one-third, or half a grain of the latter, every eight, six, or, in urgent cases, every four hours. In this plan of proceeding the influence of the remedy on the system will soon be perceived. Under particular circumstances, blue pill, the hydrargyrum c. creta, or mercurial frictions may be employed instead of calomel.

Two important questions present themselves respecting the mode of conducting this part of the treatment; first, to what extent mercury should be used, and secondly, how long it should be continued. The more powerful its action on the system, the more effectually does it controul the disease, putting a stop to the excitement of the capillary circulation, diminishing the size of the distended vessels, preventing the further effusion of lymph, and its organization into those new structures, which are so injurious to sight. Sometimes these ends are not accomplished by a slight action

on the mouth, when a more powerful influence will quickly do the business. Full salivation quickly produced cuts short recent disease, as if by a charm. The remedy may then be suspended, and its effects allowed to subside slowly, which will take two or three weeks: it will not be necessary to give any more mercury. Although the disease yields more quickly and effectually to a powerful mercurial action, it will be sufficient, in general, to make the remedy sensible in the mouth. In cases of longer standing its influence is not so quickly effectual. We must persevere until the lymph is absorbed, until the natural colour of the iris returns, the red zone round the cornea is gone, and vision is restored. This will require four, six, or eight weeks in some instances. A longer time is usually necessary in relapses and second attcks, than on the first occurrence of the complaint. I attended a gentleman for an attack of syphilitic iritis, in which the disease was of chronic character; it yielded slowly, and was well in six weeks. It recurred in consequence of premature exposure to cold, and the patient was obliged to keep the house for twelve weeks in a state of salivation, recovering perfect vision, which has continued unimpaired from that time, now many years ago.

The questions will naturally occur, why this

affection should require a different treatment from other inflammations? whether iritis may not be cured by simple antiphlogistic means? and whether the employment of mercury be absolutely necessary? To the latter there can be no hesitation in giving a negative reply. Iritis may go through its course and come to an end without any treatment; but, when thus left to itself, it often produces effects more or less seriously injurious to vision, as in Cases III., IV., and V., where, under such circumstances, contraction and adhesions of the pupils, obstruction of them by adventitious membranes, and large effusion behind the iris, with total loss of sight occurred.

Again, the affection may be controuled and brought to a conclusion by the common antiphlogistic means.*

Case.—A patient, 32 years of age, was admitted into St. Bartholomew's hospital, under my care, on the 1st of October, 1829, with superficial sores round the orifice of the prepuce, and superficial ulceration of the velum palati and tonsils. He was ordered to take a blue pill night and morning,

* "In seven cases of eruption, attended with iritis, which have occurred to my observation, the disease has been cured without the use of mercury."—Dr. J. Thomson in the *Edin. Med. and Surg. Journal*, vol. xiv. p. 91.

and the compound decoction of sarsaparilla; and to apply the black wash. On the 7th, his mouth not having been affected by the mercury, the right iris became inflamed; the attack was not severe, nor attended with much pain. Sixteen ounces of blood were taken from the temple by cupping, and active aperients were administered. On the 9th, there was a tubercle of yellowish brown lymph on the iris, with dimness of sight. The cupping was repeated to the same quantity. On the 14th twelve leeches were applied to the temple; and he left the hospital on the 19th perfectly well; the eye had recovered completely.

In Case XI., where both eyes were inflamed, active antiphlogistic treatment was employed, and the patient became very pale and feeble from the loss of blood. The right eye recovered, but the inflammation continued in the left, with increased pain and lachrymation, and progressive diminution of vision, until mercury was exhibited and carried to the extent of ptyalism.

In general, however, simple antiphlogistic treatment is not so effectual, as it was in the foregoing case, in arresting the effusion of lymph. Hence, when we trust to such means only, although the inflammation may not be violent, the pupil will contract, and lymph will be thrown out: the dis-

ease may be checked and subside, leaving the organ apparently recovered, but the adhesions and adventitious membranes resulting from the organisation of the newly deposited substance will permanently injure vision. Many years ago I treated a case of iritis in St. Bartholomew's Hospital without mercury: the inflammation was reduced by cupping, bleeding, and other corresponding measures, but a partial opacity of the crystalline capsule in the centre of the pupil, with imperfection of sight remained. Other unfavourable results are seen in Cases II. and VI.

During the time that I was surgeon to the London Ophthalmic Infirmary, I frequently saw patients who had been treated by common means, and in whom general disorganisation of the iris, contracted, closed or partially adherent pupil, obstruction of that aperture by adventitious organisations, and loss or serious injury of sight, had resulted from inflammations that might have been checked by mercury, without leaving any permanent ill consequence. I may observe that iritis, of whatever kind, is an affection easily managed: that it rarely fails to yield to proper treatment, even when the case has been originally neglected; and that the serious effects just detailed are chargeable to injudicious management only. A strong

contrast to such cases is afforded by those, in which mercury is properly administered; the cure in the latter being rapid and complete, and the occurrence of ptyalism being in general attended with the most decided improvement in all the symptoms. In this latter respect the action of mercury exerts a much more marked influence over the complaint than the loss of blood. These points are fully illustrated by Cases VII. to X., XII., XIV. to XVII., and XIX. to XXVIII. In these and in many other instances, which have come under my observation, the continued progress of the inflammation until the system was brought under the influence of mercury, the immediate cessation of the pain and the corresponding diminution of all the other symptoms as soon as the mercurial influence was established, have afforded the most unequivocal proof of the great power which the remedy possesses over the complaint.

In comparing the progress, effects, and treatment of iritis with those of other inflammations, our attention is chiefly directed to the effusion which takes place from the inflamed texture, to its influence on the pupil, and to the paramount importance of stopping that effusion, and producing the absorption of the newly deposited substance. A very small quantity of lymph thrown out in the

pupil, and then organized, may impair or destroy sight. A similar occurrence in any other part would be of no consequence. Effusions take place into the serous cavities, leading to the formation of adventitious membranes, or unnatural adhesions, without any subsequent injurious influence on the functions of the parts. Interstitial deposition occurs in other organs with similar results.

The good effects of the mercurial treatment appear most obvious when it has been resorted to after the failure of other means; as in Cases XI., XV*., XXI., XXIII., XXV., and XXVII., in most of which active antiphlogistic means had been employed without success. I was consulted, in the year 1822, by a gentleman labouring under iritis, who had undergone considerable depletion during three weeks. He had been bled twice, freely leeched and purged, and kept on low diet, the use of mercury having been carefully avoided under the notion that his constitution, which was supposed to be scrofulous, would not bear it. He had become very pallid and feeble, without experiencing any amendment of the local complaint. The sight, on the contrary, had grown more and more dim. There was a red zone round the cornea, which was hazy; the iris was discoloured and dull; the pupil adhered above and below, so as to have the shape

of an hour-glass placed horizontally, and vision was so dim that no print could be distinguished. Under the use of the hydrarg. c. creta and belladonna, with a more generous diet and wine, the disease was speedily stopped; the adhesions gave way, so that the natural figure of the pupil was restored, with perfect vision.

Two opposite opinions are entertained respecting the comparative efficacy and advantages of the simple antiphlogistic, and the mercurial treatment of iritis. Some, placing unlimited confidence in the powers of mercury, assert "that the mercurial action *alone*, when properly kept up, is sufficient to subdue the ophthalmia iridis in its most acute stage,"* while others, dreading the injurious effects of the remedy on the constitution, discard it entirely in these cases, believing that other antiphlogistic means are capable of accomplishing all that is required. I cannot adopt either of these views. Although mercury alone, or, at least, in conjunction with purgatives and restricted diet, will often cure iritis, I have seen many instances in which the sufferings of the patient have been protracted, and the organ has experienced serious injury from the continued progress of the inflammation, when

* Dr. FARRE, in his prefatory observations to the posthumous work of Mr. SAUNDERS; 2nd edition, p. 38.

the use of mercury has not been preceded or accompanied by the loss of blood. Case I. is a striking example of this kind; while the inflammation was so acute in Cases XIV., XV., XIX., XX., and XXVIII., that the propriety of direct depletion could not be questioned. If any doubt could have been entertained on the subject, the relief which bleeding afforded, in these and other instances, from the most urgent symptoms, clearly justified the practice. The danger of trusting to the antiphlogistic treatment alone, has been already sufficiently explained. The practical conclusion, therefore, at which I have arrived after ample experience of the complaint, under every variety of treatment, is, that iritis generally, and the syphilitic form of the complaint particularly, will be most advantageously treated by the successive or combined employment of antiphlogistic means and mercury; that this plan will give the quickest relief, will most effectually arrest the inflammation, restoring the iris to its healthy structure and functions, and will afford the best security against the return of the disease.

Mercury is used with the greatest effect in the active period of the inflammation, and in the acute form of the complaint. It is important to determine the time, after which it can no longer be

administered with benefit; but this is a difficult point. The question of practical importance is, whether there is any advantage in using it after the active period of the inflammation is gone by? In many such cases I have seen it given with great benefit to vision:* I speak of cases in which pain, redness, and every indication of active mischief had disappeared, where the iris had regained its natural appearance, and the apparently permanent effects of inflammation had been produced, such as organised adhesions, and considerable imperfection of sight. In many such instances, where several weeks had elapsed from the apparent recovery of the organ, and where the remedy had been used almost without expectation of advantage, it has nevertheless been of service, and has essentially improved vision. In such cases, therefore, it is best to make trial of this powerful remedy. As the circumstances are not urgent, the mercurial influence may be slowly produced; but it will be necessary to keep up the effect for some weeks.

The local employment of mercury has been recommended in addition to its internal use. A weak solution of the oxymuriate has been used as a lotion; and the red precipitate ointment, also in a mild form, has been introduced between the lids.

* See Case VI.

Such local stimuli are obviously inadmissible in the active stage of the inflammation; and I believe that they are of no use as mercurials, at any period. One mode of using the remedy locally is often of much service. When patients complain of severe pain over the orbit at night, the mercurial ointment combined with opium may be rubbed on the neighbouring integuments of the forehead and temple, with great alleviation of suffering. Six grains of the ointment with two grains of finely powdered opium should be well rubbed in before the time at which the nocturnal pain is expected to recur.* By this mode of proceeding, for which we are indebted to the Germans, the attack of pain will generally be prevented. The benefit, however, is confined to the relief of this particular symptom: mercurial frictions on the brow do not arrest the inflammation as the internal use of the remedy does.

Artificial dilatation of the pupil.

The state of the pupil is one of the most important points in all cases of iritis; to preserve its circular figure, its natural dimensions, and permeability to light, is our principal object in most instances. Here we derive essential assistance

* This treatment was adopted in Cases VII. and XIV.

from that anomalous and hitherto unexplained power, which certain narcotic vegetables possess, of acting upon the iris so as to dilate the pupil.* This power resides in the atropa belladonna †

* The influence of belladonna on the pupil had been observed long ago, and is incidentally mentioned, as if it were well known, in a case of amaurosis, related in ARNEMANN's *Magazine*, v. i. REIMARUS, who saw a striking instance of it, proposes to employ the application as a means of facilitating extraction of the cataract. See BALDINGER, *Sylloge*, as quoted in the next note. But the attention of the profession was first expressly directed to the subject by Professor HIMLY, in some remarks on "*Paralysis of the iris by the local application of hyoscyamus, and the use of this remedy in the treatment of some diseases of the eye*," published in his "*Ophthalmologische Beobachtungen*, Bremen, 1801. These were translated into French, and published at Altona in 1801, under the following title: "*De la paralysie de l'iris par une application locale de la jusquiame, et de son utilité dans le traitement de plusieurs maladies des yeux.*"

HIMLY has the merit of first seeing and clearly explaining the practical utility of this artificial dilatation in various states of the eye. It is so important in internal inflammations, by preventing contraction of the pupil; in the distinction of cataract from other affections; in discriminating the several species of cataract; in facilitating some of our operations, and as a palliative remedy in contractions and displacements of the pupil, and in many cases of glaucoma and cataract, that its introduction into practice by Professor HIMLY, may be deemed an important epoch in ophthalmic surgery.

Mr. WISHART has given a good account of the circumstances connected with this subject, historical as well as practical, in the ninth volume of the *Edinburgh Medical and Surgical Journal*, in a short paper, entitled "*Case of congenital cataract, with some observations on the means of artificially dilating the pupil in the operations of extracting and depressing the cataract.*

† This effect of belladonna, which was known to our countryman, RAY, was observed in a young man, who had some of the fresh juice accidentally applied to the eyes. The pupils remained dilated for three weeks. See BALDINGER, *Sylloge Opusculorum;* v. ii. 1777.

(deadly nightshade), the hyoscyamus niger* (henbane), the lauro cerasus† (cherry laurel), and the datura stramonium (thorn apple). It is found in the recently expressed juice of these vegetables, in an inspissated decoction of them, in the extract, or in the active narcotic principles, lately discovered by German chemists, and named by them hyoscyamine and atropia.‡ There are vegetables, somewhat analogous in their properties to these, which might therefore be expected to have a similar power; but they have not. This has been ascertained of the conium maculatum, aconitum napellus, and opium; also of the digitalis purpurea, arnica, rhus radicans, and saffron.§

The usual mode of proceeding is either to rub the moistened extract on the brow, or to drop a solution of it in distilled water into the eye: the

* The fact was first noticed by Professor HIMLY, in 1799, in a case where the eyes had been bathed with a solution of hyoscyamus: see his *Ophthalmologische Beobachtungen*, quoted in the last note but one.

† CONRADI saw full dilatation of the pupil produced by the external application of cherry laurel water, as a remedy for opacity of the cornea. *Auswahl aus dem Tagebuche eines praktisehen arztes;* Chemnitz, 1794, p. 23.

‡ *On the effects of Hyoscyamine and Atropia*, by Dr. F. REISINGER. Extracted from the *Medicinisch-chirurgische Zeitung*, February, 1826. *Edinburgh Medical and Surgical Journal*, v. xxiv. p. 287.

§ See BARATTA *Osservazione pratiche sulle principali Malattie degli occhi*, v. i. cap. 4, and BENEDICT *Handbuch der praktischen augen-heilkunde*, v. i. p. 7-9. The latter author says that the lactuca virosa and pulsatilla nigricans produce slight dilatation.

last is the most efficacious. A scruple of the extract of belladonna or of the extract of hyoscyamus should be rubbed down with an ounce of distilled water; the fluid should be filtered through linen, and two or three drops of it should be introduced between the lids. When the extract is employed, it should be brought to the consistence of honey by mixture with distilled water, and then copiously smeared on the upper lid, eye-brow, and neighbouring part of the forehead; after remaining for an hour, it may be washed off.

In the observations just quoted from the Edinburgh Journal, Dr. Reisinger expresses his opinion that a solution of the hyoscyamine or the atropia would be preferable to the other modes in which these narcotics have been used for dilating the pupil. His opinions and experience will be learned from the following passage:—

"In the first part of the Bavarian Annals for Surgery, Ophthalmic Medicine, and Midwifery, I endeavoured to draw the attention of German physicians to the narcotic principles of belladonna and hyoscyamus, discovered by Brandes and Runge, and expressed my conviction of the great utility to be derived from these substances in several diseases of the eye, and preparatory to different operations, on account of their being stronger and more certain

in their action than the extracts generally made from these plants. My expectations appear now to be realized; for, having found leisure to put them to the test of experiment, I have obtained the following results:—

"Hyoscyamine, prepared from the henbane seed, I found to be an extremely powerful substance for the dilatation of the pupil. A small drop of a solution of hyoscyamine (gr. i. to ʒ ss. of water) was introduced into the eyes of some dogs and cats; the eye was scarcely at all irritated in any case, and the pupil was so considerably widened, that, an hour after the application of the solution, only a small ring of the iris could be seen beyond the edge of the cornea; and after three hours, the pupil appeared as large as the cornea itself, without the power of vision being diminished, or any other bad symptoms being induced, even when the solution was introduced into both eyes. After three days, the dilatation of the pupil first began to diminish, and it was not before the sixth day that the iris recovered its natural state. A drop of a solution of extract of hyoscyamus, containing five grains of the extract to half a scruple of water, produced in the same eyes a considerable irritation for the space of from five to eight minutes, which was shown by the secretion of tears, shutting of the

eye-lids, rubbing of the eye-brows with the feet &c.; and a much less complete dilatation of the pupil, which in dogs disappeared after six or eight, and in cats after twenty-four hours. As soon as we learnt by these experiments, which we frequently repeated, that the hyoscyamine did not in its action injure either the conjunctiva, or any of the deeper-seated organs, as for instance the retina, I proceeded to apply it on the human eye, and found that a drop of a solution of one grain of hyoscyamine, in a drachm of distilled water, applied to the eye of a cataract patient 71 years old, produced such a dilatation of the pupil, that only a small ring of the iris was apparent. The pupil continued dilated seven days, during which time the old woman could see moderately well, and no irritation whatever was produced in any part of the eye. At another time, a drop of a solution of five grains of extract of hyoscyamus in half a scruple of water, applied to the same eye, produced a considerable burning, and only a moderate dilatation of the pupil after twelve hours. From other experiments with the hyoscyamine, we obtained nearly the same results. The hyoscyamine which was obtained from the stalk and leaves of the plant irritated the eye much more and was less efficacious than that obtained from the root."

When the organ is inflamed and painful, so that it will not bear any direct application to its surface, the moistened extract should be used; under other circumstances, dropping the solution into the eye is preferable, as being more powerful. If we wish to produce the greatest influence in the quickest manner, we may employ both methods at the same time.

The same substances will enlarge the pupil, when applied externally in the neighbourhood of the eye, as to an ulcer of the face,* or tongue,† or when taken into the stomach. In the case of a boy who had swallowed a teaspoonful of the moistened extract of belladonna, supposing it to be an electuary, and in whom a most alarming effect on the nervous system was produced, both pupils were dilated to the utmost, and continued so for two or three weeks.

The immediate effect of these narcotics is enlargement of the pupil, or, in other words, contraction of the iris, which at the same time loses its power of motion, so that the pupil remains dilated even in the strongest light: hence HIMLY

* RAY mentions in his *Historia Plantarum* (L. 13. c. xxiii.) that in a woman, who applied the leaves of belladonna to a cancerous ulcer below the eye, the pupil became dilated after each application.

† LANGENBECK, *Neue Chir. Bibliothek.*, v. ii. p. 389.

has called it paralysis of the iris. The influence is generally produced in half an hour, or from that to an hour after the application to the eye, and the dilatation lasts for several hours or even some days. It is not uniform in all individuals, being greater in proportion to the healthy state of the eye, and sometimes so considerable as to reduce the iris to a narrow, scarcely perceptible ring. Under such circumstances, vision becomes imperfect, sometimes to an alarming degree. This kind of amaurosis, which is analogous in its cause to the momentary dazzling and confusion of sight experienced in passing from a dark place into a strong light, goes off as the action of the iris returns, producing no permanent injury; as soon as the iris recovers its power of motion, vision is as perfect as before. I believe that the notion of the belladonna being injurious to vision* is unfounded. The Germans, however, acting on this notion, use hyoscyamus, which has a more feeble and temporary influence. In this country, the belladonna is used almost exclusively, as the more powerful agent; the suspicions of its injurious influence seem to me to have arisen from its greater efficacy in dilating the pupil. I have known some instances in which it has been

* Benedict, *De Morbis Oculi Inflammatoriis*, p. 116; see also his *Handbuch, &c.*, v. i. p. 7—9.

employed daily for many years: it has merely dilated the pupil, without injuring sight, or doing harm in any way. We learn too, from such cases, the important fact, that its influence on the iris is not diminished in the slightest degree by use. In two patients, of whom one had used it four or five and the other fourteen or fifteen years, it dilated the pupil just as well at the end as at the beginning of those periods.

Patients have occasionally complained of pain or undefined uneasiness as following each employment of the belladonna; but it has sometimes appeared to me doubtful whether such sensations were caused by the application.

Adhesions of the pupil prevent its dilatation more or less completely according to their number and nature. A general and close attachment precludes all change in the dimensions of the aperture, but partial adhesions only affect that part of the iris in which they are situated, so that when the edge of the iris is fixed only at certain points, the pupil may be dilated in the intervals, and then has a more or less irregular shape. A close adhesion prevents all contraction in the corresponding part of the iris; but, when the preternatural connexion is formed by slender threads, the iris may still move in a limited degree. Belladonna and the

other narcotics are capable of dilating the pupil in many instances, where the iris is no longer affected by variations in the quantity of light. But the permanent condensation of this delicate texture by the effusion of lymph under violent inflammation, when allowed to proceed uncontrolled, renders it altogether incapable of motion; consequently, in such cases, the narcotics have no effect on the pupil.

The artificial dilatation of the pupil must be combined with the use of mercury in order to prevent that contraction to which there is so strong a tendency in iritis. Belladonna and the other narcotics do not exert their power when the iris is highly inflamed, and the disease not yet checked. The application, however, although it may fail to produce the desired effect does no harm, especially if it be confined to the surrounding skin, and not actually dropped into the eye: perhaps it may even be advantageous by preventing further contraction.

The use of belladonna is of great importance, not only in preventing further diminution of the pupil, but because the contraction of the iris, under its powerful influence, is capable, where adhesions have already taken place, if the effusion be recent, of elongating them, and sometimes of separating

them entirely, so as completely to liberate the pupillary margin. But the belladonna cannot do this alone: two conditions are necessary to the accomplishment of the object; the case must be recent, and with the employment of the belladonna we must produce as quickly as possible a full mercurial effect on the system. Under these circumstances, I have seen the whole edge of the pupil detached from the capsule of the lens, to which it had become adherent; and, in proof that adhesions had previously existed, the capsule has exhibited a circular arrangement of black spots, marking their number and situation. These marks, of which the dark colour, like that of the adhesions, is derived from the pigment of the uvea, are permanent, so far as my observation goes.

The adhesions of the pupil disappeared completely under the influence of mercury in the case related at page 179; also in Cases XVI., XIX., XXIV., XXV., and XXVI.: they were removed in great part in Cases XV. and XV*.

We know so little of the mode in which medicines produce their effects generally, that it need not surprise us if we should be unable to explain satisfactorily the beneficial operation of mercury in the treatment of iritis. Its influence is not confined to the syphilitic form of the disease, but

extends equally to the idiopathic. Although the general opinion is well-founded that the full effect of the remedy is less advantageous in the iritis of rheumatic and gouty persons, I have often found it necessary to use it freely in such cases, more particularly those of the rheumatic kind, and have so employed it with decided benefit, while its more moderate employment in alterative doses is generally resorted to with advantage in all arthritic cases.

The subject receives no elucidation from what we know of the effect of mercury in syphilis. Indeed, the latter is quite as obscure as its influence in iritis. After it has been used for three centuries with a confidence in its specific powers almost complete and general, we now find its efficacy doubted by many, while others ascribe several of the symptoms called syphilitic to the noxious influence of the remedy. Putting these doubts, however, out of the question, and supposing the ancient faith and doctrines to remain unshaken, what information do we gain when we are told that mercury cures syphilis by its specific power; or that mercury causes an action or a disturbance in the constitution which destroys the action of the morbific poison?

The case of iritis is particularly favourable for

studying the influence of mercury, because the transparency of the cornea enables us to see what is going on in the diseased structure. We can observe the alterations caused by disease, and the changes effected by our treatment. In this way we discover that mercury, when employed in the manner already described, puts a stop to that increased action of the capillary vessels, on which the effusion of lymph depends. A circumstance so striking could not fail to attract notice as soon as the diseases of the eye were closely observed; thus we find BEER strongly recommending the employment of mercury in internal inflammations of the eye expressly on this ground. "I know," says he, "no remedy so capable of preventing hypopyum and opacity of the parts essential to vision, in genuine acute ophthalmia, as mercury."* Again, in the second volume of the same work, he observes, "that no remedy is so efficacious as mercury in the most acute inflammation, and in preventing suppuration and the exudation of lymph, proper evacuations of blood being premised. I promote its excellent effects in obstinate cases, by mercurial friction on the superciliary region; and since employing this method, I meet, even in the acutest

* *Bibliotheca Ophthalmica;* Vienna, 1799. t. i. p. 55.

cases, with no suppuration, nor with cataracts from lymphatic exudation."*

The late Mr. SAUNDERS employed mercury in syphilitic iritis only, as an anti-venereal remedy. In his Essay "*on Inflammation of the Iris, and the influence of Belladonna to prevent the consequent obliteration of the Pupil,*" he says, "but this state of the iris (inflammation, with effusion of lymph) sometimes arises from syphilis. Then the general plan of treatment here proposed (the antiphlogistic) must be changed for the specific remedy, and mercury must be vigorously exhibited if it be proposed to obviate the effect of inflammation, which is the same whether the inflammation be general or specific."† His friend and colleague, Dr. FARRE, was led, from observing the influence of the remedy in syphilitic iritis, to employ it in other forms of the disease; and his observation of its great power in arresting inflammations of this texture, led him to ascribe to it a general property of controlling increased action of the capillary vessels. In the observations prefixed to the second edition of Mr. SAUNDERS's posthumous work, he says, "The certainty with which the mercurial action arrested the deposition of coagulable lymph in syphilitic inflam-

* *Bibliotheca Ophthalmica;* t. ii. p. 85.

† *A Treatise on some practical points, &c,* 2nd. ed. p. 66.

mation of the iris led the editor to give this remedy a fair trial in simple inflammation of the iris, in which the disorganising process by the adhesive inflammation is precisely the same, however it may differ from the former in its exciting cause. The result of the trial has perfectly satisfied him that the mercurial action *alone,* when properly kept up, is sufficient to subdue the ophthalmia iridis in its most acute stage. Although the full action of mercury is often efficient in arresting that disorganisation of the various parts of the body which results from the gradual deposition of coagulable lymph within their interstitial textures; yet the free abstraction of blood is still essential to prevent its bolder and more immediately destructive effusions in phlegmonous inflammation. It is, however, too low an estimate of the operation of mercury to consider it only as a specific against syphilis, or as an evacuant and promoter of certain secretions and excretions,—it powerfully alters the action of inflamed arteries, more especially in respect to the effusion of coagulable lymph, which it, in various degrees, controuls, or even altogether suspends."*

Masses of lymph quickly disappear from the

* See the work last quoted; Preface, pp. 38 and 39.

surface of the iris, and the interstitial deposition into its texture is speedily removed under the mercurial action. Hence mercury has been supposed to possess the power of causing absorption. I rather think that it has no such direct operation, and that the removal of these depositions takes place in consequence of the inflammation, to which they owe their origin, being arrested. Thus the effused lymph was immediately absorbed, as soon as the inflammation had been stopped, in the case related at page 175, although the mercurial treatment was not adopted. I never saw it disappear more quickly under any circumstances. In the same way tumefaction from interstitial effusion, whether in the cellular membrane or in any organ, is soon dispersed, when the increased action which produced it is subdued, although no mercury may have been employed. Again, fragments of cataract, effused blood, and pus are rapidly removed from the anterior chamber without any use of mercury.

If mercury be capable of stopping that increased and altered action of the capillary vessels of the iris, in which inflammation of the texture consists, we should expect to find it equally useful in other inflammations, since the process is essentially the same throughout the body. I have found it no less efficacious in inflammation of the retina,

whether acute or chronic. We cannot, indeed, offer equally clear evidence of its power in this case, because the affected texture is hidden from our view. But I have so repeatedly seen diseases in which the symptoms left no room to doubt that the retina was inflamed, give way to the use of mercury, after resisting the simple antiphlogistic treatment, that I employ the remedy on such occasions almost as confidently as in iritis. Strumous inflammation of the cornea, proceeding to interstitial deposition and consequent change of structure in the part, may generally be arrested by the mercurial treatment. I have many times seen disturbance in the circulation of the head yield to mercury after resisting for a long time antiphlogistic treatment and other means. Common observation has established the fact that the free exhibition of calomel, after direct depletion, is of great advantage in inflammations generally; and recent experience has shewn that this plan is particularly beneficial in inflammations of the serous membranes, especially the pericardium,* pleura,

* That the effusion of lymph in acute pericarditis may be certainly arrested, and the disease consequently cured by mercury, so administered, in an early period of the complaint, as to produce quickly its peculiar influence on the constitution, and that simple antiphlogistic treatment will not produce the same beneficial results, are important practical points clearly established by the experience of my colleague,

and peritoneum.* In these, as well as in croup, where the power of the remedy has long been recognised, the effusions of lymph form a striking analogy to the case of iritis. I have lately used mercury with most decided success in an extensive phlegmonous inflammation of the thigh, where it prevented suppuration; and in a more chronic inflammatory affection of the integument and cellular tissue at the back of the neck, very similar to that of carbuncle. The inflammation, swelling, and induration in the latter case, slowly increased, in spite of the free use of leeches with other suitable antiphlogistic treatment, until mercury was used, and they regularly gave way to the influence of that remedy. A further evidence of its general antiphlogistic power is afforded by the common belief, founded on experience, of its utility when administered for a long time as an alterative in

Dr. P. Mere Latham. See his *Pathological Essays on some Diseases of the Heart.—London Medical Gazette*, vol. iii. p. 215—218.

* In a female, on whom I lately operated for strangulated femoral hernia under circumstances which made me fear that inflammation would ensue, and in whom the continuance of some swelling, tension, and pain, with whitish tongue and want of rest, after depletion had been carried as far as the general powers would allow, and after the bowels had been freely evacuated, left little doubt that peritonitis was proceeding slowly, these symptoms were quickly removed by the free exhibition of calomel and opium, and complete recovery followed in the most favourable manner. She took gr. ii. of calomel with 1-3d of a grain of opium every six hours.

various chronic enlargements. Hence we may conclude that the utility of mercury in inflammation of the iris does not depend on its possessing any specific power over that texture; and we shall be disposed to concur with Dr. Hamilton, of Lynn, who first recommended its employment in inflammations, as now practised, in ascribing to it a general power of arresting inflammatory disturbance. After stating that he had employed calomel and opium with great success in hepatitis, Dr. H. says, "This success led me into the following train of reasoning:—The efficacy of mercury in ophthalmia had long been established; its specific virtues in every symptomatic venereal inflammation had been long known; its liberal use in inoculation, in the modern way, had borne testimony of its power in abating inflammation; and the success in treating the hepatitis in India, with the late instances of the same kind which had passed under my eye in this country, were fresh proofs of its excellence. I considered that the general cause, be it what it may, of an inflammatory diathesis, must be the same whether the inflammation is seated in the meninges, pleura, lungs, liver, diaphragm, or any other internal membranous part; and therefore the circumstance of locality could make little or no alteration in the general intention of cure. From

these premises the following deduction naturally arose. As mercury had proved so successful an agent in removing inflammation in the several instances above-mentioned, it was reasonable from analogy to conclude that it would prove equally so in every kind of inflammatory disease. Wherefore I was determined to give it a fair trial in every one, as opportunities offered for that purpose, and flattered myself, from the data before me, that my experiments would be attended with success."* Dr. H. then proceeds to particularise the diseases in which he has employed calomel and opium with advantage; viz. pneumonia, whether considered alone or as consequent on measles and small-pox, or occurring during pregnancy; dry catarrhal cough; pleurisy; phrenitis and paraphrenitis; enteritis, and other abdominal inflammations; puerperal fever; inflammatory angina; acute rheumatism; gout; and inflammations of the head, thorax, and abdomen, from external injury.†

Dr. FARRE's opinions respecting the utility of mercury in inflammations agree essentially with those of Dr. HAMILTON. This is apparent from

* DUNCAN's *Medical Commentaries*, 1785; vol. ix. p. 195. Dr. HAMILTON mentions, in his letter to Dr. DUNCAN, that he had already employed this treatment for eighteen years.

† Ibid. p. 196—198.

the quotation at page 197. The following observations on another occasion present his ideas on the subject in greater detail. "I have uniformly regarded the mercurial action as one of the most effectual means of arresting the disorganising process of adhesive inflammation, whether of the iris or of any other texture of the body. To the liver in this state of disease (hepatitis) it has been long applied, except that some have had their fears about commencing it too early; and through this delay, have probably lost the opportunity of preventing suppuration. In cynanche trachealis it has been more recently used with success. In the last stage of marasmus, from nodes of the large bones, I applied it with success in 1805, and since that period, with equal success, to adhesive inflammation of the pericranium, both where it has been entitled pseudo-syphilitic and where it was neither syphilitic nor bearing any resemblance to syphilis; before and since that period with marked advantage in arterial congestion, and even in organic changes of the brain; in 1809, successfully in carditis from acute rheumatism, and since that period in chronic carditis."*

Mr. Hugh Carmichael, of Dublin, has lately

* Letter from Dr. Farre to Mr. Travers, published in Cooper's and Travers's *Surgical Essays*, Part I. p. 97.

recommended the oil of turpentine in iritis generally, and more particularly in the syphilitic form of the affection.* He appears to place the greatest confidence in the efficacy of mercury, speaking of "its almost unerring powers over the inflammation of the iris,"† and admitting "that in the treatment of disease generally, an instance wherein a remedy is more successfully employed cannot perhaps be adduced:"‡ but he recommends the turpentine in instances where mercury is inadmissible, in consequence of its occasional injurious influence, or of the debility produced by protracted disease. The following extract will shew the mode in which the treatment was conducted.

"I use the turpentine in this complaint in drachm doses, given three times a-day. Its disagreeable flavour and nauseating effects I have found best obviated by almond emulsion. This circumstance it is very necessary to attend to, the medicine being so unpleasant, that, if its taste be not in some way disguised, it is difficult to depend on patients taking it with the necessary regularity. In the formation of the emulsion, if double the

* *Observations on the Efficacy of Turpentine in the Venereal and other deep-seated Inflammations of the Eye, with some Remarks on the Influence of that medicine on the System, accompanied by Cases:* 8vo. Dublin, 1829.

† P. 25. ‡ P. 26.

quantity of confection directed in the London Pharmacopœia be employed, that is, two ounces to the half pint of water, it answers the above objects much better: the residuum may be removed by straining.

"With an emulsion so made, the following is the formula I now generally adopt:—℞. Olei terebinth. rectificat. ʒi. Vitellum unius ovi. Tere simul et adde gradatim, Emulsionis amygdalarum ʒiv. Syrupi corticis aurantii ʒii. Spiritus lavandulæ compositi ʒiv. Olei cinnamomi guttas tres vel quatuor. Misce, sumat cochlearia larga duo ter de die.

"In a few cases it has been necessary to increase the quantity of turpentine to an ounce and a half, or two ounces, in the above mixture, the other ingredients being proportionally diminished, so that a drachm and a half, or two drachms of it may be taken each time; but in general, when administered to the extent directed in this formula, it has very seldom indeed failed, though extensively tried, and in very urgent cases: the instances of its failure shall be presently noticed.

"The strangury, so frequently induced by the internal use of turpentine, is obviated by the usual means—flax-seed tea and camphor julep: when very urgent, the medicine may be suspended for a

time. The tendency to acidity in the stomach, which it sometimes causes, is relieved by the addition of carbonate of soda to the mixture; ten or fifteen grains to the eight ounces will be sufficient; some patients have said, the taste was further disguised by this addition.

When the local inflammation is high, and acute pain is present in the eye and side of the head, the abstraction of blood from the temple, by cupping, or the more immediate seat of the disease, by leeching, may be resorted to: the same practice is adopted where mercury is used. Nevertheless I have frequently, when these symptoms were very urgent, relied solely on the turpentine mixture, and with the most decided and expeditious relief; indeed, in some instances, where the pain and hemicranium existed as acutely as they are perhaps at any time to be met with, patients have declared they were considerably relieved after they had taken it once or twice, and that its subsequent exacerbations were lessened in a very remarkable degree. It is in the former cases I have generally found it necessary to follow up the bleeding by increasing the quantity of the turpentine.

It is highly necessary to observe, that the condition of the bowels will require attention; the beneficial effects of the medicine appear to be in

certain cases suspended when constipation is present, and are called forth, as it were, when this is removed."*

The cases related by Mr. CARMICHAEL exhibit the powers of the remedy in a very favourable light. In several well marked instances of syphilitic iritis, the pain, redness, and other symptoms were quickly removed, effused lymph was soon absorbed, and vision restored under its influence. In other instances it was less successful.

As the result of some trials of the remedy by Mr. GUTHRIE, it is reported, that " in some cases it has succeeded admirably ; in others it has been of little service ; and in some unequal to the cure of the complaint."†

I have had no experience of this remedy in iritis.

* P. 9-11.

† *London Medical Gazette*, vol. iv. p. 509.

CASES OF SYPHILITIC IRITIS.

CASE I.*—*Acute syphilitic iritis with papular eruption; extensive and repeated effusions of lymph on the surface of the iris: termination in atrophy of the globe.*

W. W., ætat 21, a stout healthy man of full habit and good constitution, with light hair and blue irides, had a sore on the prepuce, about the

* Although this case was not, at any time, under my own care, I watched its course daily till the 14th of October, and can answer for the accuracy of the details, which were noted by my pupil Mr. JOHN WOOD. He saw the further progress of the affection from the 7th of March to its termination, and has furnished me with the particulars. The history is interesting, as it strikingly illustrates the peculiar characters of syphilitic iritis, and shews the changes of structure by which vision is destroyed in the first instance, and subsequently the very form of the globe is lost. These serious consequences must be ascribed principally to the neglect of active antiphlogistic treatment in the early stage, when the free and repeated abstraction of blood was obviously required by the acute character of the local symptoms, not less than by the robust constitution, previous habits, and age of the individual. Again, the state of the eye was rendered worse, and the patient's sufferings were increased by the effect of the blisters and the savine cerate applied in the immediate neighbourhood of the organ, then in a state of violent inflammation.

middle of May, 1827, and soon after a bubo in each groin. He took pills till the sore healed and the swellings subsided; but his mouth was not affected. Six weeks after the removal of the primary symptoms, eruptions appeared on the face, and extended rapidly over the body. For this he consulted a noted quack doctor, but without receiving any benefit.

August 16th. The right eye, in which he has suffered severe pain for the last eight or nine days, exhibits the usual symptoms of iritis consequent on syphilis, occurring in a strong hearty man. There is considerable external redness, the sclerotic coat having a bright pink hue round the cornea, while numerous turgid trunks are seen lying on it further back; and the conjunctival vessels being at the same time distended and conspicuous by the contrast of their bright scarlet colour. The blue tint and the brilliancy of the iris are completely lost; it has a dull muddy appearance, without any trace of the natural fibrous structure: the inner circle is reddish brown, while in the outer this tint is mixed with a dull yellowish colour. The pupillary margin is thickened and irregular. The cornea is dull, and the anterior chamber generally has a cloudy appearance. The eye is painful; the pain being most acute on opening it against the light,

which causes a copious flow of tears, and when the patient is warm in bed : his rest is frequently interrupted by sharp attacks in the eye, also in the shin bones. Vision is of course very imperfect : he can only distinguish large capitals, and that with difficulty. He has papular eruption over the body, which is declining : a few papulæ have formed on the mucous membrane of the eye-lids, where they are conspicuous as small yellow points, equal to a large pin's head.—(Two grains of calomel with a quarter of a grain of opium every six hours. Moistened extract of belladonna to the eye-brow. Milk diet.)

17th. All the characters of the inflammation are more strongly marked, and the eye is more painful to-day.

19th. The patient is still worse ; the vessels of the conjunctiva and sclerotica are more distended, the iris is darker coloured, the anterior chamber more obscure, and vision more dim.—(The treatment continued ; six leeches to the temple.)

20th. A mass of light coloured lymph has been effused on the lower and outer part of the iris, while the change of colour in this structure generally has become more striking. The pupil is a little dilated, and very irregular. The mouth is slightly affected by the mercury.

21st. The mass of lymph effused on the iris is increased, and the conjunctiva corresponding to it is swollen. The patient can now scarcely distinguish light from darkness. The affection of the mouth is not increased.—(The calomel and opium, and the belladonna to be continued. Mercurial liniment to be rubbed on the arms night and morning.)

23rd. The eruption is disappearing, and the pains in the bones are gone; but the eye continues acutely painful. The swelling of the conjunctiva is less, but the effused lymph is increased, while the general discolouration of the iris, the dusky state of the pupil and anterior chamber, and the external redness, are unaltered. He complains that the mouth is very sore.

27th. Although the appearance of the iris is somewhat improved in its upper half, another small effusion of lymph has taken place below the former, which is rather increased.—(No alteration in the treatment.)

30th. No abatement of the inflammation or pain. The two portions of lymph are united, so that one large light brownish yellow mass occupies nearly the lower half of the iris.—(Twelve leeches to the eye; the other treatment continued.)

Sept. 4th. Great relief was experienced from the leeches, and the patient feels himself better:

ptyalism is established. The external redness of the eye is less, and the pain is gone. The mass of lymph is diminished; the external redness is peculiarly bright in the part of the globe corresponding to the lymph, and numerous large tortuous vessels are seen here: a pink zone of fainter hue surrounds the cornea in the rest of its circumference. The pupil, dilated by the belladonna, is quite mis-shapen by adhesions, which give it something of the hour-glass figure.

11th. The lymph is almost entirely absorbed, and the whole appearance of the eye much improved. The patient is suffering from severe ptyalism.—(The friction discontinued; the calomel and opium to be taken only twice a day. Broth diet.)

15th. The eye continues in a favourable state, and vision is daily improving. The adhesions of the pupil remain. Yesterday the broth diet was exchanged for meat and beer, which he is permitted to have daily.

18th. Relapse of inflammation, with great pain. —(The calomel and opium to be again taken every six hours; a blister to the right temple: meat and beer continued.)

21st. Effusion of lymph renewed in the former situation.—(Milk diet instead of the meat and beer.)

22nd. No vesication produced by the blister. The eye more inflamed, and the effusion of lymph increased.—(Twelve leeches. The blister to be repeated, and the surface to be afterwards dressed with the savine cerate. The calomel and opium continued every six hours.)

25th. The inflammation is more considerable, having been obviously aggravated by the blister, and the subsequent irritating applications to the blistered surface. The effused lymph is increased, while there has been further deposition throughout the texture of the iris, changing its colour and appearance as much as in the first attack.—(The savine dressing to be discontinued.)

Oct. 1st. Eighteen leeches were applied to the eye, on the 26th of September, with much relief. The same number was again applied on the 27th, on the 29th, and on this day, with continued favourable progress.

6th. The absorption of the lymph is proceeding slowly: there is still some external redness, with occasional uneasiness.—(Eighteen leeches. The calomel and opium continued.)

8th. A relapse of inflammation, which the patient attributes to exposure to a draught of air.—(Twenty leeches.)

9th. The inflammation continues, and the pro-

gress of absorption is interrupted. The calomel has acted but slightly on the mouth.—(The leeches to be repeated, and the calomel and opium continued. A drachm of the mercurial ointment to be rubbed in night and morning.)

14th. The patient, being dissatisfied at the mode of treatment, and the length of time occupied in effecting the cure, placed himself under the care of an oculist, and was not seen again till the 7th of March, 1828, having then completely lost the sight of the right eye, which remained inflamed and painful. He stated that, during the interval, his eye had in the first instance been scarified; and that numerous leeches had been applied to it. As the inflammation did not yield, he was cupped several times, and took pills which did not produce soreness of the mouth. He continued under this gentleman's care for two months, and obtained slight relief from the inflammation and pain after losing all power of vision. He went to Guilford in the beginning of January, and there tried various remedies without benefit. At this time a mucous discharge took place from the conjunctiva, which has continued more or less troublesome since, causing agglutination of the palpebræ in the morning.

March 8th. There is considerable external red-

ness, especially on the lower and outer part of the globe, where a collection of dark red vessels is seen. Nearly the whole of the anterior chamber is occupied by a quantity of lymph, which fills the pupil and obscures the iris; of the latter, only the upper part can be seen, and it has a reddish brown appearance. There is a deep-seated aching in the globe, and the right orbit and temple are constantly painful.—(Twelve leeches to the temple. A drachm of mercurial ointment to be rubbed into the armpits night and morning: two grains of calomel with one of opium twice a day.)

14th. No change.—(The calomel and opium to be taken once in six hours; the friction to be continued.)

18th. The mouth is sore; the inflammation and pain are diminished.

The patient was confined to a low diet, and continued taking from eight to ten grains of calomel daily for three weeks, which made the mouth very sore. The inflammation of the eye gradually subsided. Medical treatment was now discontinued, and he experienced no further inflammation. When he was seen at the end of two months, atrophy of the globe had commenced and was proceeding.

CASE II.—*Iritis of both eyes, and closure of the left pupil by an adventitious membrane, with ulceration of the throat and tuberculo-scaly eruption; no mercury having been used previously to the appearance of these symptoms: subsequently, nodes of both tibiæ, and swelling of the great toe, with effusion of lymph behind the iris, and diminution of the globe in its anterior portion.*

RICHARD WINCH, 29 years old, a blacksmith, contracted gonorrhœa eight months ago; the complaint was soon cured. He had a slight swelling in the groin two months after. He said that he had never had a sore on the penis; a cicatrix was however discovered, and it was found that the frœnum had been destroyed, when he admitted that a sore had come on the part about a week after the clap, and had lasted about a fortnight. An eruption appeared on his head and arms seven weeks before admission; after two weeks the eyes became inflamed, with great pain and intolerance of light, more especially on the left side, where these symptoms lasted a month: he was relieved by losing blood from the arm. About two weeks ago he began to feel his throat sore. He has taken a little

aperient medicine, and nothing else; he has not used mercury in any shape.

Nov. 21st, 1828. The whole body is pretty thickly covered with an eruption, consisting of light copper-coloured spots, or slight tubercular elevations, of various sizes, but mostly small. Nearly all of them are more or less scaly: they are particularly numerous on the face and scalp. There is an excavated ulcer with a dirty white surface in each tonsil. The right eye is free from disease, excepting a slight increase of vascularity in the conjunctiva: the iris is of its natural bluish grey tint, and the pupil adheres by its inferior margin to the capsule. Vision is perfect, or at least very slightly dim. The left eye has suffered considerably from internal inflammation, which is not yet arrested. The whole iris is altered in colour, having lost its brilliancy, and assumed a dark tint, which in great part of the surface is a yellowish green. The pupil is contracted and fixed in its whole margin, and the opening is filled by a grey opaque adventitious membrane. A red zone surrounds the cornea, and pain is experienced, particularly at night, in the globe, eye-brow, and head. There is increased lachrymal discharge, particularly on exposure to light. Vision is reduced to the mere power of distinguishing light from darkness.

Bowels costive; pulse 100, rather full and hard.—(Twelve leeches round the left eye. Opening medicine: afterwards, two grains of calomel with one-third of a grain of opium every six hours.)

24th. Fifteen ounces of blood taken from the left temple, by cupping.

26th. The mouth slightly affected; the eye still watering and painful; the pupil more contracted.

Dec. 1st. The mouth considerably affected by the calomel, which has been taken regularly. The ulcerations of the tonsils are healed; the eruption has faded considerably. The eye and head are free from pain, and the former looks much better. The iris is not so dark, and it has a yellowish colour, particularly towards the inner circle.

He continued the use of mercury so as to keep up a slight affection of the mouth, and leeches were two or three times applied to the left eye, which was sometimes a little inflamed and painful, at others free from redness and quite easy. He left the hospital without leave on the 19th of December, the eruptions having then disappeared, leaving merely slight discolourations of the skin, the throat having been completely well for some time, and the left eye free from pain. He now indulged freely, particularly in the use of spirits, to make up for the restraint to which he had sub-

mitted in the hospital; and in about a week the left eye became extremely painful, much more so than on the former occasion; and the eye-lids were considerably swollen. About the same time the shin bones swelled, and became so excessively tender, that he could not bear the weight of the bed clothes. He now applied for relief at the London Ophthalmic Infirmary, when he lost a small quantity of blood from the temple by cupping; purgative medicine was ordered, a mercurial pill three times a day, of which he took ten with the effect of slightly affecting his mouth, and belladonna to the brow: he found no relief from these measures, but, after suffering most acutely in the eye for a week, the pain gradually lessened.

On the 9th of January, 1829, he was again admitted into St. Bartholomew's, under my care. In the left eye there has been a severe relapse of internal syphilitic inflammation, accompanied with a large deposition of lymph in the anterior chamber, and probably with a similar effusion behind the iris. More than the lower half of the anterior chamber is filled with a soft and not completely opaque mass of lymph, the upper irregular margin of which covers the pupil; its colour is whitish with a slight dull yellow tint. Behind the margin of the cornea, on the lower and anterior part of the

globe, the conjunctiva is raised into a swelling, as large as a pea, and the centre of this raised portion is yellow. The circumference of this conjunctival elevation, and the margin of the cornea in its lower half are most thickly covered by small vessels, making the parts of a deep red colour; large trunks, highly distended, are seen advancing under the conjunctiva from the circumference of the globe, and subdividing until they are lost in this red part. These appearances are not seen in the upper half of the globe which is nearly of its natural paleness. The cornea is hazy. At present there is not much pain in the eye. The periosteum of the tibia is swelled in the whole length of each shin, with partial elevations, on which a faint blush of redness can be perceived, while the integument generally has its natural paleness. The left great toe and its ball more particularly are swelled and slightly red. This part and the shins are most acutely painful; the pain is raised at night to a degree of agony, which entirely prevents rest. Few traces of mercurial action are left. The patient is emaciated and feeble; and seems worn out with suffering.—(A dose of the senna mixture immediately; to be repeated when necessary. Half an ounce of essence of sarsaparilla thrice a day; two grains of calomel thrice a day, with one grain of

opium in the night dose, and half a grain in each of the two others.)

11th. Eight leeches to the great toe, and twelve to the right tibia. Linseed poultice.

17th. The calomel and sarsaparilla have been continued; the mouth is very sore; and there is great improvement in all the symptoms, with corresponding amendment in the general state and appearance of the patient. The pain in the legs and toe troubles him at night only, and is not very severe then. The lymph has entirely disappeared from the anterior chamber. When its upper portion had been removed, so as to expose the pupil, a dense mass was seen issuing out of that aperture, spreading over the lower part of the iris, and lost in the general effusion. At a period of further advance in the absorption, a thick triangular stratum covered the middle and lower part of the iris; its base corresponding to the ciliary margin, and the apex entering the pupil. There can be little doubt, from the appearance just described, that this second large effusion of lymph took place behind the iris. We may suppose that the dense adventitious membrane, which filled the pupil after the original attack of iritis, at first resisted the passage of the lymph through the pupil, and that it consequently made its way

through the external tunics, elevating the conjunctiva into the tumour already described. It would seem, however, that this barrier was afterwards broken through, so as to allow the lymph to pour through the pupil and fill the lower half of the anterior chamber. The conjunctival tumour is not diminished, but the external redness is greatly reduced. The eye is free from pain, and begins to feel flaccid, so that the occurrence of atrophy may be anticipated.

He remained in the hospital about two months, taking mercury so as to keep the mouth sore. The swelling of the shin bones and of the toe went away, the pain ceased, and he regained his flesh and strength. The globe of the eye was reduced in size, and soft; the pupil contracted, and filled with a dense opake substance; and the iris in contact with the cornea. A small light brown spot marked the situation in which the lymph had made its way through the sclerotic coat.

At the end of a few weeks he again entered the hospital, on account of severe pain in the head. Instead however of being reduced and feeble, as he was before the mercurial course, he was robust, and had a good healthy colour. After various means had been tried ineffectually for the pains in the head, it was necessary to resort again to mercury,

under which they speedily yielded, and he soon left the hospital quite well.

He was once more under my care in St. Bartholomew's, in 1829, on account of ulcerations in the legs, which soon got well under simple local applications, with rest. In the beginning of the present year (1830) he was again admitted, on account of a few small superficial phagedenic ulcerations, which were quickly removed by sarsaparilla. He has continued in good health; having experienced very little inconvenience from the affection of the tibiæ since the mercurial course which he underwent for it, although they are occasionally painful. The iris of the left eye is in contact with the cornea; the pupil is filled with a dense opake body; and the uvea probably adheres to the capsule. Hence the anterior portion of the globe is lessened, but general atrophy has not occurred.

CASE III.—*Syphilitic iritis of both eyes; acute in the left, chronic in the right; terminating in atrophy of the left globe.*

THOMAS ROBINSON, ætat. 19, of pallid complexion, and apparently strumous habit, thin and weak, had a sore as large as a sixpence on the outer

surface of the prepuce, about six months ago. It healed under the application of the black wash, and the use of a few mercurial pills. He has had no other syphilitic symptoms. Ten weeks ago he found his eyes becoming very weak; they watered a good deal, and he was obliged to discontinue his work as a steel polisher. About the same time he received a blow on the left eye from a twisted piece of paper. He has completely lost the sight of the left eye for the last five weeks: vision of the right eye has been much impaired for the same time. The left eye has suffered serious change of structure from acute internal inflammation, which still continues, and has altered the figure of the globe by causing a bulging of the lower anterior part of the sclerotica. The iris and pupil are in close contact with the cornea; the pupil being contracted, but not filled by any opake substance. At the lower part of the iris there is a considerable and irregular deposition of lymph, brownish and apparently mixed with blood. On the prominent part of the sclerotica there is a round protrusion, equal to a small pea, of light brownish appearance, covered by conjunctiva. It seems to be a portion of lymph making its way through the sclerotic coat, and it leads to the supposition that the distention and bulging of the sclerotic coat, as well as the contact

of the iris with the cornea, are caused by an internal deposition of lymph, similar to that which is effused upon the iris. The inflammation has extended to the outer tunics; there is considerable and general external redness, but the vascular trunks are largest and most numerous over the prominent portion of the sclerotica. The accompanying pain has not been in proportion to the vascular congestion, the effusion of lymph, and the disorganization: it has not interrupted rest, and is at present inconsiderable. The eye is absolutely insensible to light. No disorder is observed in the right eye on a superficial view; but closer examination detects in the iris and pupil effects of languid or indolent inflammation, the character and consequences of which are strongly contrasted with what has occurred in the other eye. The iris has in great measure lost its natural brilliancy and fibrous appearance, and its lower half has a slight yellow tint. The pupil, in point of size, is in about its middle state, and adherent throughout by a series of minute short dark filaments, which give it a fringed appearance. There is some redness round the margin of the cornea, and this is most conspicuous below, opposite the yellow discolouration of the iris. He can distinguish letters an eighth of an inch in length, with

some difficulty, and cannot see any of a smaller size. He has had no pain, heat, nor uneasiness in this eye, nor any pain in the head or temples.

13th. (Cupping on the temples to twelve ounces; a dose of calomel and jalap.)

15th. Two grains of calomel with a third of a grain of opium, every six hours; the moistened extract of belladonna to the brows.

21st. The mouth is decidedly affected. The left eye is much improved: the external redness is gone from the upper part of the globe; and the quantity of lymph is diminished. The appearances in the right eye are not much changed. The redness is less; and yesterday, in the sunshine, he could read small print; but to-day he makes out even the larger characters with difficulty and imperfectly.—(Calomel and opium twice a day.)

25th. The effect of the mercury upon the mouth is considerably diminished; and there is little alteration in either eye.—(Repeat the calomel and opium three times a day.)

31st. The mouth is again sore. In a strong light he can distinguish small print. The left eye feels flaccid and unresisting on pressure.

Jan. 3rd. He feels assured that his eyes are much improved; and states, that upon rising in the morning he waved his hand before the left eye,

and that he could discover something moving before him.

9th. The left eye has shrunk considerably; the lymph is completely removed from the anterior chamber, and the prominent tubercle on the sclerotica has disappeared. The globe is so flaccid that it feels quite soft through the palpebræ, offering no resistance to the finger; the diminution of the globe (*atrophia bulbi*) is obvious externally when the lids are closed. The right eye is quite natural, excepting the pupillary adhesions; vision is still imperfect, although he could read a middle sized print with tolerable facility to-day.—(Continue the calomel and opium thrice a-day.)

28th. The mouth is kept sore by the calomel and opium. Sight is a little improved, but he cannot see by candle-light.

Feb. 8th. He has continued the use of mercury to the present time, so as to affect the mouth. He can now read the smallest print by day-light; not so perfectly by candle-light. The left globe is considerably shrunk. Discharged cured.

CASE IV.—*Pupils contracted, adherent, and occupied by adventitious membranes, in consequence of syphilitic iritis; with pustular syphilitic eruption: no previous use of mercury.*

ANN RICE, ætat. 17, a stout girl, of good constitution, contracted gonorrhœa fifteen months ago, and had subsequently a bubo, which suppurated. She is not aware that she ever had sores: the discharge from the vagina has continued to the present time. About seven months ago amenorrhœa occurred, and at this period her right eye became inflamed: it was painful, especially at night; she had pain in the head, and was feverish. She did nothing, except bathing the eye with milk and water; and she continued her usual occupation of needlework, when in three weeks the left eye became affected. Her mother now applied some stimulating drops, which she thinks were of benefit. As nothing more was done prior to her admission into St. Bartholomew's, the present state of the organs exhibits the changes of structure, which syphilitic inflammation will produce in the iris when left to itself.

June 1st, 1827. Although the irides are slightly changed in colour, and have a somewhat unnatural

appearance, their texture is not much altered. The pupils are contracted, and completely occupied, in each eye, by a thin greyish and nearly opake membrane. The irides do not move under any variation in the quantity of light. She can just discern large objects, and find her way in places that she is acquainted with; but has no other useful vision. There is slight external redness, but no pain. Eruptions began to appear on the face, about six weeks since; and lately two have come on the thigh. The face and forehead are now thickly covered with inflamed circular patches, each of which has a yellow incrustation in its centre, as large as a sixpence or a shilling. The patches are bright red and painful, and the parts occupied by them are swollen. They resemble the large yellow pustules of the scabies purulenta in their incrusted state, more nearly than the ordinary forms of venereal eruption. Those on the thighs are still in the pustular state.—(A dose of calomel and jalap immediately; one-eighth of a grain of the oxymuriate of mercury in four ounces of decoct. sarsaparillæ comp. thrice daily. A solution of the extract of belladonna to be dropped into the eyes, night and morning daily.)

3rd. The belladonna has caused partial dilatation of the pupils, and thus rendered the number,

position, and form of the adhesions more apparent. The figure of the pupils, when thus dilated, is extremely irregular. In their contracted state, both are filled by a thin greyish membrane, to which the margin of the aperture seems adherent, and no alteration is produced by covering the eye or exposure to a strong light. Under the influence of belladonna, the upper and outer portion of the right pupil is a little retracted, so as to show that it is attached to the grey membrane by slender black threads. In this state three small apertures, quite clear and black, and nearly circular, are left between the adhesions. Through them light passes into the eye with so much improvement of vision, as to enable the patient to see all objects distinctly, to recognise persons, and to make out, not only capital letters, but ordinary print of the middle size. The left pupil adheres to the grey membrane in nearly its whole circumference, leaving only one minute aperture, which becomes sensible under the use of belladonna. Vision is not so good in this eye. As the opake membrane is limited in extent to the space circumscribed by the contracted pupil, and as the pupillary adhesions are fixed to its border, there can be no doubt that it is an adventitious formation, produced by the effusion of lymph from the inflamed iris, and its subsequent organi-

sation; in short, that this membrane and the threads fixing the pupillary margin are analogous to the adhesions and new membranous productions (*pseudo-membranæ*) of other serous cavities. The state of vision in the left eye renders it probable that the inflammation had extended to the posterior tunics, and caused change of structure in the retina.

29th. The effect of the mercury, which she has continued to the present time, is visible in the gums, but the mouth has not been sore. Nearly all the eruptions on the face have scabbed; and those on the thigh are disappearing.

July 4th. Another pustule exactly like the former has appeared on the knee. Since she has been in the hospital, a few fresh eruptions have come on the face, while the others were healing. On the lower lip and near the angle of the jaw a few incrustations remain. The forehead and cheeks are covered with copper-coloured scaly blotches, and the skin is rough where the pustules have healed. The eyes have lost their redness. She considers her sight and health much improved since she came to the hospital.—(Let the dose of the oxymuriate be increased to a quarter of a grain thrice daily.)

8th. The mouth is slightly sore, and the eruptions have declined more rapidly than before.

18th. She has not menstruated for the last eight months. There is occasional head-ache, with disorder of the bowels.—(Discontinue the oxymuriate and sarsaparilla. Venesection to eighteen ounces. A dose of calomel and jalap.)

20th. Mist. ferri comp. ʒi. cum decoct. aloes comp. ʒ ss. thrice daily.

Aug. 1st. Venesection to fourteen ounces: blood buffed and cupped. Medicine continued.

3rd. The catamenia have returned, with great benefit to the health.

6th. Discharged.

CASE V.—*Syphilitic iritis of the right eye, with ulcerations of the external organs, and tuberculo-scaly eruption: no mercury employed before the eye became inflamed.*

MARIA WETHERLY, ætat. 35, of spare habit, with rather dark complexion and hair, and brown irides, admitted into St. Bartholomew's on the 30th of June, 1829, contracted sores three months ago; and these were followed, in the course of a month, by eruptions over the body generally. It is six weeks since the eye became affected, severe pain in the head having been experienced during the preceding fortnight, although the patient is not

subject to head-ache or any kind of illness. A few leeches, blisters, and aperient pills were administered, but without benefit to the eye, which gradually got worse. No means were used for the other complaints, and she has never taken a particle of mercury.

June 30th. There are a few slightly elevated ulcerations of the labia, and at the orifice of the vagina. The head, face, trunk, and limbs are occupied by an eruption, consisting of coppery and slightly elevated patches, which assume a scaly appearance as they decline: these are various in size, none of them exceeding that of a shilling. There is a red zone round the cornea of the right eye. The iris, which is naturally bright and light brown, has become dull, and of a darker tint, particularly on its lesser circle. The pupil is contracted and very irregular in shape, being connected by several short threads to a grey adventitious membrane, which nearly fills the opening. The latter seems to fill the pupil completely in the ordinary state of the parts, and the threads of adhesion are scarcely visible; they become more distinct after the application of belladonna, and the very small interstices between them are then seen of the black colour, which is natural to the pupil. Considerable pain, with nocturnal exacerbation, has

existed from the commencement of the attack, and is still experienced. The pain is increased, and attended with lachrymation, on exposure of the organ to light. Vision is very imperfect: she can just discern the middle bar of a sash window.—(Two grains of calomel with one-third of a grain of opium night and morning. The moistened extract of belladonna to be smeared on the brow daily.)

July 6th. The mouth is affected by the mercury; the redness is less, and the pain is gone. She thinks the sight better, but she cannot see even the largest print.—(Discontinue the mercury.)

August 19th. The effect of the mercury on the mouth went off very slowly: the warm bath has been used three times a week. The sores and eruption have been well for some time, and the eye has been quite well since the last date, except so far as regards the changes in the pupil. The adventitious membrane in that opening, has a glistening bluish white appearance. She can read large print readily, and make out the letters of small print with tolerable facility. Discharged.

CASE VI.—*Syphilitic iritis, treated without mercury, and terminating in contraction and adhesion of the pupil, with dimness of sight.*

MR. I. aged 22, of light hair and complexion, and robust habit, had an ulcer of the glans of moderate size, for which he took blue pill, so as to affect the mouth slightly. The sore healed in a fortnight, and he used the remedy about three weeks. There was no affection of the glands. Two months afterwards he had severe inflammation of the eyes, which first appeared in the right, and in a few days attacked the left also. It lasted about a month, and was attended with external redness, increased sensibility to light, lachrymation, and considerable pain; the latter coming on severely after he went to bed, lasting through the night so as to prevent sleep, and becoming less in the morning. No suspicion was entertained that this affection was syphilitic; no mercury was used, but active antiphlogistic measures were resorted to, including venesection, loss of blood by cupping three times, and numerous applications of leeches. When the inflammation had subsided, dimness of vision remained in the left eye, but the right recovered

completely, although the pain had been most considerable in the latter.

In the course of a few weeks after the cessation of the inflammation, this gentleman consulted me on account of his left eye, in which I found a slight alteration in the colour and appearance of the iris, and several thread-like adhesions of the pupil, fixing the aperture in a state of contraction. He could see objects and even read in a good light, but found a mistiness or dimness before the eye. He had also small copper-coloured scaly eruptions on the palms and fore-arms, and ulceration of the tonsils, although these symptoms had troubled him so little that he did not mention them to me, and I found them out only in consequence of questioning him on the subject. I ordered him two grains of calomel with one-third of a grain of opium thrice daily, and the solution of the extract of belladonna to be dropped into the eye. I saw him again at the end of a month, when I found that the mouth had been soon affected by the mercury, and that it still continued moderately sore. The eruptions and sore throat had entirely disappeared, and the dimness of vision in the left eye was nearly gone.

CASE VII.—*Syphilitic iritis of the left eye, without any other constitutional symptom.*

JAMES TAYLOR, ætat. 25, a strong healthy man following the occupation of a paviour, has been frequently afflicted with the venereal disease, for which he has been salivated six or seven times. He was under my care in St. Bartholomew's for a sore on the penis with buboes and eruptions, in November 1829. He soon got well under the use of mercurial frictions, which affected the mouth; the influence of the remedy was not kept up long. While he was in the hospital, with the mouth still sore, he was attacked with inflammation of the eyes, as he supposed from exposure to an open window. He had never suffered from inflammation of the eyes before. He was twice cupped in the temples, and took opening medicine, under which treatment the complaint soon subsided. He continued well from the time of leaving the hospital to the 28th April, 1828, when he experienced dimness of sight in the left eye, soon followed by pain and inflammation. It became gradually worse, and nothing was done for it till he was again received into St. Bartholomew's on the 5th of May.

There is now considerable external redness, the

iris is dull and discoloured throughout, the effect of the disease in this respect being particularly conspicuous on contrasting the inflamed with the healthy eye. The iris does not move on exposure to light, which causes no increase of pain, nor lachrymal discharge. The pupil is partially dilated. The cornea is dull, and there is a cloudy appearance of the anterior chamber generally. The patient suffers little during the day, but the eye is so painful at night that he cannot rest. He cannot distinguish even large print with the left eye, and he sees indistinctly with the right which is affected sympathetically.—(Fourteen ounces of blood to be taken from the left temple by cupping. A dose of calomel and jalap, followed by a purging draught. Ung. hydrarg. fort. gr. vi. with pulv. opii gr. ii. to be rubbed in over the brow at night.)

6th. Twelve leeches. Two grains of calomel with one third of a grain of opium every six hours. The ointment continued.

8th. Cupping on the back of the neck, to sixteen ounces.

9th. Salivation has occurred, and the eye is much improved in every respect.

June 1st. Discharged perfectly well.

CASE VIII.—*Syphilitic iritis of the left eye, without any other symptoms of the disease.*

JOHN MOORE, ætat. 21, came into St. Bartholomew's hospital on the 22nd of January, 1829.

His health and general appearance have been injured by habits of drinking and debauchery. Eighteen months ago he had gonorrhœa, and nine months since a sore on the glans and prepuce, near the orifice of the urethra; this lasted three or four months, and then healed under the use of pills, which produced salivation. Soon after he was attacked with pains in the bones, which confined him to bed for some weeks; he has continued to suffer occasionally from this cause. The eye became inflamed about six weeks back. After allowing the disease to go on without any treatment for a month, he consulted a gentleman, who directed the application of three leeches and a blister to the temple.

Jan. 22nd. Increased vascularity of the sclerotica and conjunctiva of the left eye, and general haziness of the cornea. The iris is dull and irregular on the surface. A large mass of yellowish brown lymph is seen on the nasal side, apparently rising up between the fibres of the iris. There is a

smaller portion in the upper part of the pupil, which is contracted, very irregular and motionless. The access of light causes pain, and slight lachrymation; hence the eye is kept constantly closed. The pain is most severe at night. Vision is less imperfect than the duration of the complaint and the appearance of the organ would have lead one to expect; the patient can distinguish the hands of a watch, so as to tell the time.

A cicatrix shows the situation of the primary sore, which destroyed the frænum. There has been no eruption nor affection of the throat.—(Cupping on the temple to fourteen ounces; an active aperient; and afterwards two grains of calomel, with one-third of a grain of opium every six hours.)

26th. Ptyalism has occurred with great improvement of the eye. The redness is lessened, the pain gone, and the lymph considerably diminished. —(The calomel and opium to be continued twice a-day; extract of belladonna on the brow.

28th. Profuse salivation, and further great improvement. The increased vascularity, the lymph and the pain are quite gone; the iris is different from the other in its colour, and apparent texture, and the pupil is fringed with adhesions. Sight is good.—(Mercury left off. Belladonna continued.)

Feb. 11th. The effect of the mercury slowly

subsided, and he was discharged this day, the eye having continued perfectly well, with the exception of the permanent changes already specified in the appearance of the iris and the state of the pupil.

Case IX.—*Syphilitic iritis, without any other secondary symptoms.*

John Morris, ætat. 19, was admitted into St. Bartholomew's, under my care, on the 23rd of September, 1825. He went into Guy's Hospital for sores on the penis in June, and was discharged cured about the end of August. Eight days after his dismissal he was attacked with inflammation in the eye, and then became an out-patient of the London Ophthalmic Infirmary; he discontinued his attendance, as soon as he found himself relieved, without waiting for the completion of the cure, and the present relapse of the disease ensued.

24th. There is general discolouration of the iris, abundant deposition of reddish brown lymph on its lower and outer part, adhesions of the pupillary margin, and bright pink zone round the cornea. (Blood to be taken by cupping from the back of the neck. Extract of belladonna to the brow. Two grains of calomel with half a grain of opium every four hours.)

25th. He has not been cupped, and the inflammation is increased.—(Venesection to fourteen ounces; twelve leeches round the eye.)

26th. Slight ptyalism; the inflammation diminished.

28th. Mouth severely affected. The eye is much better; the redness is almost gone, and the absorption of the lymph is proceeding rapidly.

29th. The extract of belladonna to be constantly applied with a view to the removal of the pupillary adhesions.

Oct. 10th. Discharged perfectly well. The adhesions remain.

CASE X.—*Syphilitic iritis, unaccompanied by other constitutional symptoms; yielding speedily to the antiphlogistic treatment, followed by the moderate use of mercury.*

LYDIA BATTEN, aged 20, a tall, thin, young woman, with light complexion, hair, and eyes, came under my care at St. Bartholomew's, in November, 1828, with gonorrhœal discharge, a sore on the external organs, and excoriation with ulcerations and fetid discharge between the toes of both feet, and at their roots *(rhagades digitorum)*. At the time of admission the discharge had existed

nine weeks, and the sore six weeks; the affection of the toes began a week after the sore made its appearance: she had employed no medical treatment. These symptoms yielded, in five or six weeks, to the use of the blue pill, by which the mouth was slightly affected, and to the local application of the liquor arsenicalis, and of a solution of the nitrate of silver (gr. ii. ad ℥i). She not only lost the syphilitic symptoms above-mentioned, but was considerably improved in general health and strength, and she was discharged, but allowed to remain a short time, until a favourable opportunity should occur for her return into the country. During this time she began to experience slight pain, with dimness of vision in the right eye; and considering it a trifling affair, she did not mention the circumstance for some days. When my attention was called to it, on the 22nd of December, I found that she had felt uneasiness in the part for a week past. There is now slight dulness of the iris, a tubercle of light yellowish brown lymph, equal in size to a large pin's head at its lower and outer part, and an incipient one above. The pupil is irregular and fixed. There is very slight external redness corresponding in situation to the depositions of lymph, and confined to those parts. The eye waters, and is painful, particularly at night,

when it prevents rest. Vision is so far impaired that she cannot distinguish features.—Cupping on the temple to 14 oz.; extract of belladonna to the brow; two gr. of calomel, with one-third of a gr. of opium, every six hours.)

23rd. The redness, pain, and watering are increased; the pupil has been partially dilated by the belladonna, and is seen to be adherent at three or four points.—(Eighteen leeches.)

28th. The lymph is absorbed, the adhesions have disappeared, excepting one at the upper part, and vision is completely restored. The mercury has disordered the bowels, but not made the mouth sore.—(The mercury to be discontinued, and the chalk mixture given.)

She continued the application of the belladonna for a few days, and did not leave the hospital till the 23rd of January, during which time she had no relapse, nor any fresh symptoms; but on the contrary, gained flesh and improved considerably in appearance. The only permanent effect produced by the iritis was a single slender adhesion of the pupil, visible in its dilated state.

CASE XI.—*Syphilitic iritis of both eyes; mercury not taken before the eyes were affected: one eye cured by antiphlogistic treatment: the employment of mercury necessary for the other.*

JOHN DURRANT, a groom, aged 22, of light complexion and blue eyes, and of temperate habits, was admitted into St. Bartholomew's on the 23rd of June, 1829.

About Christmas he had a small sore on the prepuce, and a swelling in the groin, having been affected with gonorrhœa a month or six weeks before. He consulted no medical person, but merely took some salts; and the symptoms disappeared in a month. He got wet at Easter, and was confined to bed from rheumatism of the limbs, on which cough and pain in the chest supervened. He was bled and gradually recovered, but has felt weak since, having lost flesh, and been occasionally troubled with cough. He has never taken mercury. The affection of the eyes began three weeks ago, the right having been inflamed four or five days before the left. He paid no attention to the complaint for a fortnight, and then consulted a surgeon, who directed the application of six leeches and a lotion, which did no good.

June 23rd. In the right eye, which is the most inflamed, the sclerotic coat has a light pink hue on the front of the globe, the colour being deeper towards the margin of the cornea. The iris is dull and sluggish, the greater circle being nearly of its natural colour, while the lesser is reddish brown or rusty coloured, from the general effusion of lymph into its texture. The edge of the pupil is slightly thickened and villous, and adheres by a single brown thread. The colour of the pupil is natural. There is considerable pain in the eye, which is increased at night, and on exposure to light: it frequently waters. He cannot see to read even a large print. The vessels of the conjunctiva are partially turgid: the cornea is unaffected. The appearances exhibited by the left eye are similar, but less in degree; and a single thread of adhesion appears in the pupil. The iris possesses its natural colour except round the pupil, where it has a slight reddish brown tint; and it moves tolerably freely. —(Cupping on the temples to sixteen ounces; a dose of calomel and jalap, followed by a purging draught.)

24th. Feverishness and head-ache; the eyes remaining in the same state as yesterday.—(Venesection to twenty ounces: saline antimonial draught every six hours.)

26th. Cupping on the back of the neck to sixteen ounces. Extract of belladonna on the brows daily.

July 1st. The inflammation has been gradually subsiding in the right eye, which is now well; vision is nearly perfect. Disease has advanced in the left eye, which is more painful than at the time of admission. The depletion already employed has rendered him very pale and feeble.—(Twelve leeches to the left eye; the belladonna to be left off, its application having been always followed by increase of pain.)

3rd. The inflammation of the left eye is not diminished, although the strength is much reduced. A pale papular eruption has appeared, first on the face, and subsequently on the trunk and limbs.—(Cal. gr. ii. c. opii. gr. 1-3 sexta quaque hora.)

7th. The mercury has caused purging, without affecting the mouth. The right eye is perfectly recovered; the left still considerably inflamed, with constant pain, some intolerance of light, lachrymation, and inability to distinguish any except large print. The mercury to be continued.

22nd. Ptyalism has been produced, and the calomel has been left off these two days. The natural appearance and powers of both eyes are completely restored; and the eruption is nearly

gone. The patient looks much better, and states that he feels himself stronger, and altogether in better health than when he entered the hospital.

August 1st. He left the hospital, having been perfectly well since the last report.

CASE XII.—*Syphilitic iritis of both eyes, with primary sore and bubo, and papular eruption: no previous use of mercury.*

JOHN ROSE, ætat. 20, of fair complexion, light hair and eyes, became my patient at St. Bartholomew's on the 27th of October, 1825. He contracted disease three months ago, when he had a sore behind the glans, and a bubo, which suppurated. Eruptions, and inflammation of the eyes appeared on the 20th of October. He had been confined for five weeks previously by jaundice; and he says that he has taken no medicine except for the latter complaint. At present there is a superficial and healing ulcer of the prepuce, with a firm and rather indurated cicatrix, shewing the sore to have been originally more extensive; a healing ulcer of the groin, the size of a half-crown; an eruption over the whole body of thinly scattered small red pimples, which suppurated slightly, and then declined—they are most numerous on the

face; well marked iritis of both eyes, most advanced in the left. The irides are dull yellowish green, this unnatural colour being most conspicuous in the left eye; the pupils are extremely irregular from slender adhesions. There is considerable external redness in the form of a zone round the cornea; and the latter is hazy in the left eye. The eyes are hardly painful except at night, when the pain is not severe. Vision is greatly impaired, especially in the left eye, which is the most inflamed. The skin and conjunctiva are slightly yellow. There is no head-ache; the pulse is natural; the tongue moist and clean, and the bowels regular.

Oct. 28th. Two grains of calomel with one-third of a grain of opium every six hours. Extract of belladonna to the eyebrow every night. Milk diet.

30th. No constitutional effect produced by the mercury, and the iritis increased. The left cornea is so dull that the outline of the pupil cannot be distinguished; vision is worse, particularly in the left eye, with which he can see nothing. Severe pain in the head, which prevented sleep last night. —(Fourteen or sixteen ounces of blood to be taken by cupping from the left temple. The calomel and opium to be repeated every four hours.)

Nov. 3rd. The mercury affected the system in twenty-four hours after the change in its quantity, and the symptoms have all regularly and rapidly decreased from that time. The mouth is now very sore.—(Discontinue the mercury, and go on with the belladonna.)

6th. The primary sore is healed, and the induration removed: the eruption has disappeared, merely leaving a few slight discolourations of the skin. The irides have recovered their natural bluish-grey tint; the pupils are largely dilated, and most of the adhesions have given way. The corneæ are perfectly clear; the red zone is nearly gone. Vision is restored.

9th. The adhesions have nearly disappeared; the patient says he can see as well as ever.—(Belladonna continued.)

14th. Slight blush of redness in the sclerotica of the left eye; no other symptoms.—(Pil. hydrarg. gr. v. thrice daily.)

16th. Redness increased, with slight pain in the eye. Pulse 96, and full; tongue moist and clean; bowels open.—(Calom. gr. ii. cum opii gr. 1-3 every six hours.)

18th. Mouth sore and redness diminished. Continue the mercury.

21st. The right pupil has again become adherent

at two points, but there is no return of pain or redness.—(Continue.)

30th. The natural colour of the irides and vision are completely restored: the pupil adheres at two or three points in each eye. He has felt perfectly well for the last week, except that the mouth has been tender from the mercury, which was discontinued on the 25th. Discharged cured.

Case XIII.—*Syphilitic iritis of the left eye, not preceded by the use of mercury.*

Daniel Courtenay, ætat. 53, with light hair and blue irides, has followed the occupation of a tailor from early life, and has been a hard drinker, according to his own confession, which is amply confirmed by his red and pimply countenance. In the summer of 1804, after having enjoyed good health for eighteen months in the West Indies, he became subject to night blindness, which lasted six weeks, and went off spontaneously. He continued working with his needle in the day time, but was totally blind at night. He experienced the same affection in France in 1814, for a few days only: it has never troubled him since. Five months ago, he contracted a sore on the outer surface of the prepuce; it was superficial and not painful: it

became as large as a shilling, and healed in about two months, without either the local or internal use of mercury. Three months ago, swellings came in the armpits, and broke after becoming as large as a common nut. Six weeks ago, and about five weeks after the healing of the sore, the left eye became affected. At first, something like a bee seemed to flutter before it, and afterwards he saw various sparkling objects. He continued his usual employment, in spite of these symptoms, for nearly three weeks, when he was obliged to desist, as the eye had become blood-shot and painful, and he could no longer see the needles. He went to the London Ophthalmic Infirmary, where he had purgatives, and then took calomel and opium, so as to produce salivation. Afterwards he was cupped in the temple with considerable but temporary relief, and then took bark with soda. He admits that he resumed his needle-work from time to time, and considers that, in respect to vision, pain, and external appearance, the eye is just in the same state as when he first applied at the infirmary.

He came under my care at St. Bartholomew's on the 11th of Dec. 1828. The eye-lids on both sides present the ordinary appearance of chronic lippitudo from gin-drinking, and are agglutinated in the morning. The iris of the left eye has a dull

yellowish green tinge, which forms a very remarkable contrast to the bright blue of the sound organ. It does not move on changes in the quantity of light, so that the pupil, which is clear, remains permanently in the middle state. The cornea is surrounded by a bright rose-red zone about three lines in breadth, which does not extend to its very margin, but terminates abruptly so as to leave a white ring round the cornea. Large turgid vessels are seen under the conjunctiva, advancing from the circumference of the globe, subdividing, and then lost in the pink zone. In the intervals of these trunks the sclerotica has its natural white appearance. He experiences constant pain in the eye, but it is not always equally severe; there is an exacerbation at night, on getting warm in bed, followed by a remission in about two hours. Exposure to light causes uneasiness and watering. Head-ache and acute pain across the brow are experienced occasionally. He can just distinguish the number of fingers held up against the light, when near the eye. The gums are red and swollen, and there is strong mercurial fetor in the breath; the velum palati exhibits extensive superficial ulceration of aphthous character, obviously referrible to mercurial action. He has no other constitutional symptoms. The white ring round

the cornea, which I never saw more distinctly marked, and the general discolouration of the iris made me consider this case, when I first viewed the eye, as arthritic iritis; and I found that it had been so regarded at the Ophthalmic Infirmary, where the patient had not communicated the history of his ailments. When, however, I learned the previous occurrence of the syphilitic sore, and that the patient had never experienced an arthritic symptom, although his habits and the circumstances of his life had been well calculated to excite such complaints, I had no hesitation in determining the affection to be syphilitic.—(Poppy fomentation to the eye, and extract. belladonnæ to the brow night and morning. An aperient draught immediately; half an ounce of essence of sarsaparilla thrice daily.)

13th. The symptoms are all aggravated; the head-ache and pain in the eye are severe; the ball is very tender when touched, and there is great intolerance of light. Vision is worse.—(Venesection to 16 oz.: treatment continued.)

14th. The abstraction of blood, which was buffed and cupped, gave great relief, and the patient had a better night than for some time past. The eye is much better to-day, and the colour of the iris is greatly improved.

15th. The eye is not so well to-day; twelve leeches were applied with benefit.

18th. Relapse of inflammation; the red zone, and the discolouration of the iris are as strongly marked as at first. Eight ounces of blood were taken from the temple by cupping, with great relief. The throat is well.

19th. He was found to-day mending a pair of breeches, and with the eye worse. Twelve leeches.

20th. Leeches repeated.

22nd. Severe relapse of inflammation with headache, and general feverishness. There is great external redness, which is general, and not confined to a zone round the cornea, nor is there the white ring at the margin of that part.—(Venesection to 16 oz. and purging medicine.)

23rd. The blood drawn yesterday was strongly buffed and cupped. The inflammation is less, but the eye and head are still very painful.—(Cupping on the temple to 16 oz.; two grains of calomel with one-third of a grain of opium every six hours.)

24th. Only half the quantity of blood was taken, and no marked relief followed. Repeat the cupping to 12 oz.

26th. The appearance of the iris is much improved, and the redness is diminished.—(Leave off

the belladonna. The hydrarg. c. creta substituted for the calomel and opium.

28th. The mouth is sore. The external appearances of inflammation are completely removed. The pupil is clear, and its margin is confined by three or four black threads. Vision is not much improved.

Jan. 10th. He left the hospital with complete restoration of the colour of the iris, and considerable but not equal improvement of sight.

Case XIV.—*Acute syphilitic iritis, with scaly eruption.*

Elizabeth Smith, ætat. 35, was received into St. Bartholomew's, under my care, on the 24th of November, 1825, with sores on the nymphæ, and livid discolouration, with excoriation, ulceration, and fetid discharge at the intervals of the toes of both feet, and on their opposed surfaces; both affections, according to her own statement, having commenced nearly together about six weeks previously. She applied black wash to the sores on the nymphæ, and took pil. hydrarg. gr. v. twice a day. The liquor arsenicalis, first diluted and then of full strength; a solution of lunar caustic, and

afterwards the caustic in substance were employed to the ulcerations of the toes. She was discharged cured on the 4th of January, 1826.

On the 29th of the same month she was re-admitted, having acute iritis of the right eye, a few small red and scaly patches on the back of the neck, and general inflammatory enlargement of the nose, with excoriation of the anterior nares. The inflammation of the iris, which had existed four or five days, was of the most acute character, the blood-vessels of the conjunctiva and sclerotica being distended to the utmost, and making the whole organ fiery red. The cornea was hazy; the iris discoloured and altered in appearance throughout; the pupil filled with a deposition of lymph: from the latter circumstance, together with the impaired transparency of the cornea, the opening could not be distinctly seen. She could merely distinguish between light and darkness. There was severe pain, both in the eye and head; and this was aggravated at night, so as to prevent rest. There was general flushing both of the face and head, heat, thirst, white tongue, and loss of appetite.—(Cupping on the temple to 16 oz.; two grains of calomel with one-third of a grain of opium every six hours.)

30th. Inflammation not abated. — (Twelve

leeches. Three grains of calomel with half a grain of opium every six hours. Five grains of the ung. hydrarg. fort. with two grains of opium to be rubbed into the brow at bed-time.)

31st. Although the pain was lessened by the means prescribed yesterday, the local and general symptoms are still severe.—(Venesection to 20 oz. Extract of belladonna to the brow. The other means continued.)

Feb. 1st. Mouth slightly affected, and all the symptoms much lessened. The external redness, which was before general, is now reduced to a zone round the cornea. The pupil is dilated by the belladonna, and vision is returning.—(Treatment continued.)

2nd. Pain over the eye, which made the patient very restless: the symptoms of inflammation are not increased.—(Eight leeches to the brow: other means continued.)

5th. Ptyalism is produced, and the inflammation is completely arrested.

She left the hospital before the end of the month, with perfect recovery of the eye, restoration of vision, and complete removal of all the other symptoms.

CASE XV.—*Syphilitic iritis occurring during the use of mercury, and affecting both eyes in succession: very acute in the left eye. Repeated relapses.*

SARAH BRIANT, ætat. 17, of short stature and full habit, with light hair and blue irides, came under my care in St. Bartholomew's Hospital, on the 21st of November, 1828. She has been on the town about eight months; and, about three months ago, contracted sores on the external organs, which soon got well under the use of mercury, the mouth having been made slightly sore. Three weeks afterwards, eruptions appeared on the body and limbs. She continued following the life of a common street-walker, and became affected with gonorrhœa a month before her admission.

Nov. 21st. She has at present discharge from the vagina, condylomatous excrescences and sores about the anus, and in the fissure of the buttocks, itch, and an eruption thickly covering the trunk and extremities. The latter is in patches of various size, with bloody points from abrasion by scratching, as if it were a combination of scaly syphilitic eruption with itch. Intermixed with this are portions of livid discolouration, some of which,

especially on the thighs, are very extensive. She has pain in the shin bones, which is worse at night. —(An opening draught occasionally. Sulphur ointment. Solution of sulphate of zinc to be injected into the vagina, and used as a lotion.)

Dec. 10th. The itch is cured, the syphilitic eruption remaining, but rather on the decline. The patches of various size occupy nearly the whole surface, rendering the skin generally rough; and the livid discolourations continue.—(Warm bath every other day. Five grains of the pil. hydrarg. night and morning daily. Nitrate of silver to the condylomatous growths.)

16th. The right eye is affected with iritis, which has been coming on gradually for two or three days. She has found the eye painful for the last two nights, but has experienced in the day-time no inconvenience from it, excepting slight dimness of vision. There is increased vascularity of the sclerotic coat, general discolouration and dulness of the iris; and the pupil is fixed in about the middle state. Exposure to the light is painful, and causes watering of the eye. She was prevented from sleeping last night by pain in the globe, which has remitted entirely this morning. She can make out with difficulty the letters of large print.—(Venesection to sixteen ounces; twelve

leeches to the eye in the evening. Poppy fomentation. The blue pill to be continued.)

17th. The venesection and the leeches removed the pain, and she is much better to-day.

22nd. The mouth has been sore for the last two or three days, and she is now salivated. All appearances of inflammation are gone; the pupil, which in this patient is naturally large, has regained its natural size and freedom of motion, and vision is perfect. She is ordered to leave off the pills, and take some opening medicine occasionally.

Jan. 9th, 1829. She has been kept in the hospital in consequence of a glandular swelling in the neck, which has suppurated; it was punctured to-day, and discharged two or three teaspoonfuls of pus. The gums are still a little tender: there has been no relapse of inflammation in the eye.

She was discharged about the 20th, and readmitted on the 30th of January, 1829, with most acute inflammation of the left eye. Although she had taken every care of herself, the eye became painful and redder than natural on the second day after her discharge; and it has been getting rapidly worse to the present time. She has had no sleep for the last three or four days in consequence of unremitting and most severe pain in the organ and

over the brow, and intense general head-ache. No means of relief have been adopted.

30th. The external tunics and the iris of the left eye are in a state of high inflammation. The inflamed sclerotica, as seen through the highly injected conjunctiva, is of a deep rose or almost violet tint, which, with the general haziness of the cornea, the cloudy state of the anterior chamber, and the muddy appearance of the iris, gives a very inanimate expression to the eye. There is general effusion into the texture of the iris, producing a very dark and dull discolouration, and a distinct mass of reddish brown lymph is deposited at its lower and nasal part close to the aperture of the pupil, which is motionless, irregular, and moderately contracted. Although it is doubtful whether she can distinguish light from darkness, lachrymation and pain are increased on exposing the eyes to the window.

The fullness of pulse, head-ache, and general feverishness accompanying the acute inflammation of the eye in this instance, urgently require the most active antiphlogistic treatment; from which, followed by the free employment of mercury, more or less complete relief may be expected. Irreparable change of structure and loss of sight would

be the probable consequence of trusting to mercury alone. Indeed, as the retina is totally insensible, the event of the case so far as regards vision must be quite uncertain.

31st. Thirty ounces of blood, which has a firm buffy coat, were taken yesterday from the arm, when faintness ensued. The bleeding had not the effect of emptying the loaded vessels of the eye, which retained its inflammatory aspect, while the face and lips were rendered completely pallid. The eye was easier afterwards, but still continued painful, and, as the pain increased in the evening, it was necessary to apply a dozen leeches. The bowels were freely acted upon by calomel and jalap, and a senna draught afterwards, and she commenced taking two grains of calomel with a third of a grain of opium last night, which dose has been repeated every four hours. She slept tolerably well, and is better in every respect to-day. Although not free from pain, she feels comparative ease, after the severe suffering she has endured for the last few days. All the textures of the eye are less inflamed, and the lymph on the iris, which is seen more distinctly in consequence of the improved state of the cornea, and aqueous humour, is a little diminished. The pupil is immoveable, and slightly drawn towards the root of the nose. The mer-

curial fetor is perceptible in the breath.—(Twelve leeches to the eye; a dose of the senna mixture; calomel and opium continued.)

Feb. 4th. A very marked improvement has taken place in the appearance of the eye, and she begins to see objects imperfectly, though she cannot distinguish the number of fingers held up against the light. The inflammation of the conjunctiva and sclerotica is considerably diminished, the white of the eye being merely interrupted by a few deep-seated vascular trunks, which extend towards the cornea from the back of the globe. The iris has nearly regained its natural colour; and the effused lymph has been in great measure absorbed. There is a discolouration and slight inequality of the surface of the iris in the situation where the mass of lymph was before observed, so that a small quantity of lymph probably remains diffused through the texture of the membrane at this part, which causes unequal dilatation of the pupil under the action of belladonna. The eye has been entirely free from pain since ptyalism and soreness of the mouth came on two days ago, except on exposure to light, which causes watering and slight uneasiness of the organ. The calomel and opium were discontinued yesterday, as the bowels were disordered and the mouth considerably

affected.—(The moistened extract of belladonna to be smeared over the brow every morning.)

6th. The patient's sight has materially improved since the last date, although no further alteration has taken place in the appearance of the eye, excepting increased dilatation of the pupil, which now exhibits three strongly-marked irregularities from points of adhesion. She can read large print without difficulty. There is no pain whatever in the eye, but she complains that constant spitting and soreness of the mouth interrupt her rest at night.—(The mouth to be rinsed occasionally with an alum gargle, and the belladonna to be continued.)

10th. Vision has continued to improve daily, and she now distinguishes small print with perfect ease. The adhesions appear to be giving way, but the pupil remains irregular and less dilated than that of the opposite eye. There is no difference in the colour of the two irides at their outer circumference; the left iris, however, has comparatively a much darker inner circle. A few blood vessels are still seen preternaturally distended in the sclerotica of the left eye.—(An aperient draught when necessary, low diet, and the belladonna continued.)

15th. She considers herself well, and vision is

perfectly restored. The pupil is freely dilated by the belladonna, and the adhesions are scarcely perceptible. Slight vascularity of the sclerotica remains.

19th. The left eye is again inflamed. There is increased redness of the external tunics, and a considerable brownish discolouration of the iris at its inner circle, which is very apparent on contrasting the two irides. Vision is rather confused, though she is able to read ordinary print. The lids were agglutinated this morning. She experiences in them a constant itching and uneasiness, which induce her to rub the parts, but she has no material pain in the globe. The natural appearance of her countenance, which was blanched by the loss of blood and salivation, is now completely restored. It appears that she has not menstruated during the last five months.—(Cupping on the temple to twelve ounces, a senna draught immediately, and to be repeated if necessary.)

25th. The eye is better, but the patient is frequently troubled with pain over the brow and head-ache.—(Ten grains of the pil. aloës c. myrrhâ every night.)

27th. A slight relapse of inflammation of the left eye, with dimness of vision, but no pain in the

organ. She has considerable head-ache which interrupts her rest.—(Cupping on the temple to ten ounces.)

28th. No blood was obtained by the cupping. The eye is more inflamed to day, and the discolouration of the iris more conspicuous.—(Twenty-four leeches to the eye.)

March 1st. No alteration in the state of the eye. The head-ache is more severe.—(Venesection to fourteen ounces.) She was much relieved by the bleeding, and having continued well, was discharged in the middle of the month, but having no place to go to, she was allowed to remain in the ward. She again became ill, and on the first of April violent inflammation existed in the right eye, affecting chiefly the sclerotic and iris. The vessels of the former round the cornea were much injected, and of a deep pink colour; the sight was nearly extinct; she complained of great pain in the globe, and in the head generally, particularly at the back part. The left eye was slightly affected in a similar manner. Her pulse was frequent, rather hard and full, and her tongue foul. She was ordered to be bled immediately to fainting, which took place after 42 oz. had been drawn, the vein bleeding very freely:—while the blood was flowing the redness of the sclerotic sensibly diminished, and

finally almost disappeared. The blood was considerably buffed. The next day the symptoms were diminished: the pupil however was still irregular, and the sight indistinct. On the 3rd of April the improvement was more considerable. The pulse was about 120 and soft.—(The saline draught with sulphate of magnesia every six hours.)

6th. The pain has again increased and the sclerotica is severely inflamed; though the sight is tolerably distinct and the pupil not irregular.—(The bleeding repeated to twelve ounces.)

On the 8th she remained much in the same state.—(Twelve leeches were applied round the eye, and a blister to the back of the neck.)

9th. The symptoms were much relieved—and on the 10th appeared to be quite subdued.

On the 15th there was a partial relapse in the same eye, and another blister was ordered, but not applied. The following day the inflammation was again very severe. The pulse 130 and small, and the tongue furred.—(The compound calomel pill night and morning. Eighteen leeches to the right temple.)

From this time to the end of the month she gradually recovered without any relapse, and was soon after discharged. Her strength however was much impaired. Her pulse was quick and feeble,

and she was extremely pale. Since leaving the hospital she has had three smart attacks of pain in the globe, with imperfect vision, and injection of the vessels of the sclerotica. In the second, which happened about six weeks ago (June 7), the pupil of the right eye was somewhat irregular. Each of these and several of minor importance readily yielded to a few leeches, a brisk purgative, and the subsequent use of quinine. Her strength is at this period much recovered, and her sight is perfect in both eyes, though she still complains of occasional pain in the left. The catamenia, which had ceased before her first admission into the hospital, have now returned at several regular intervals. She is engaged in very active employment, to which she seems quite adequate.

July, 1830. During the last twelvemonth Sarah Briant has experienced only one slight attack of inflammation in the eye, and she has remained free from syphilitic affection. She is less fat than before, but in perfect health, and quite capable of the laborious exertion which her present situation requires.

CASE XV*.—*Syphilitic iritis of both eyes, acute in the left, chronic in the right; scaly syphilitic eruption. No mercury used for the primary affection.*

WILLIAM MOSELY, ætat. 25, a stout man, with light brown hair and greyish irides, was admitted into St. Bartholomew's Hospital on the 27th of January, 1829. He is a shoemaker, and enjoys good health notwithstanding his indulgence in drinking. Last August he had sores on the inside of the prepuce, which got well without the use of mercury in about six weeks. Before they had completely healed, he had an attack of feverishness with pains in the limbs; and shortly afterwards eruptions appeared on various parts of the body. These symptoms subsided under the use of sarsaparilla, which he took for several weeks; but marks of the eruptions remained. The affection of the skin returned in December, extending and becoming more strongly marked for three weeks, during which he employed no medical treatment. On the 1st of January he became an out-patient of the hospital, for eruptions and pains in the limbs. He took PLUMMER's pill, at first twice, then three times a-day, till his mouth was slightly affected:

but the complaints were no better, and the eyes became inflamed, so that he was induced to come into the hospital.

Jan. 27th. The left eye became painful two days ago. The patient continued at work till yesterday, when the increasing uneasiness, and watering caused by the employment of the organ, obliged him to desist. There is considerable and general redness of the conjunctiva and sclerotica, and the distinction between the vessels of the two membranes is strikingly apparent on directing the globe upwards. The vessels of the sclerotica are most distended opposite to that part of the iris on which lymph is effused. The natural greyish colour of the iris is distinguishable in its upper half, but the membrane generally is darker than that of the opposite eye. A large mass of yellowish brown lymph covers the lower half of the iris, projecting at its centre, and blended towards the circumference with the texture of the membrane. The pupil is drawn downwards and inwards, and fixed in the middle state. Pain is constantly experienced in the eye, but varies in degree at different times: it is aggravated by even the slightest exercise of the part, which the patient constantly covers to keep off the light. He can make out with difficulty the letters of a middle-sized print.

No pain has been experienced in the right eye, nor did the patient know that it was inflamed. On close inspection, a few pink vessels can be discerned in the upper part of the sclerotica, at its junction with the cornea. A small portion of yellowish brown lymph is effused into the texture of the iris, at the upper half of the pupillary margin, and a still smaller portion is perceptible in the corresponding part of the iris below; so that the pupil, which exhibits the usual changes of size, presents two irregularities. Vision is perfect in this eye. The face is thickly covered with large reddish brown patches (*psoriasis syphilitica*), which extend over the face and neck, and are found in greater or less number and of various sizes over the whole body, excepting the feet and legs. The eruption is tubercular in some parts; its surface is scaly and rough, and it has caused excoriation between the nates. It has left large red marks on the palms of the hands. The left tonsil is enlarged and red, but not ulcerated. The tongue is foul; there is slight feverishness and occasional headache.—(Venesection to sixteen ounces. A dose of calomel and jalap immediately, and a purging draught afterwards. Two grains of calomel with one-third of a grain of opium every six hours.)

28th. No change is visible in the eye, but there

is less pain. As the pulse is rather full, and the blood drawn yesterday presents the buffy coat, let the venesection be repeated to twelve ounces.

Feb. 2nd. No relief followed the bleeding; but the mouth soon after became considerably affected by the mercury, when decided improvement was immediately observed. The lymph is diminished in the left eye, and the sight is improved. The sclerotica is still preternaturally red, and the iris sluggish.—(Mercury discontinued.)

4th. The left iris is still darker coloured where the lymph was effused; elsewhere it has regained its natural appearance. The figure of the pupil remains irregular, and its motions limited. The patient can read the ordinary print of a newspaper with facility.—(A dose of the calomel and opium every night.)

10th. The left eye is nearly recovered; the smallest print can be distinguished with facility, though the sight is not perfectly clear. On close examination a small thread-like adhesion is observed in the upper part of the right pupil: the lymph is not quite removed. The eruptions are well, but have left reddish marks behind.

21st. The eyes are completely recovered. The patient is feverish to day, and has pain in the chest, with cough.—(Saline draught with antimony.)

25th. The cough and pain are worse, and accompanied with slight head-ache, thirst, and heat of skin. The eyes are a little red, with some indistinctness of vision.—(Venesection to twelve ounces. Medicines continued.)

27th. The cough continues with less pain.—(A grain of antimon. tart. in solution every two hours.)

28th. Much better.

This patient remained in the hospital a month longer on account of the disease in his chest, which gradually went off.

Case XVI.*—*Syphilitic iritis with scaly eruption.*

John Mahony, ætat. 24, a mason's labourer, with blue irides, was admitted into St. Bartholomew's on the 16th of August, 1827. He affirms that he never had venereal disease of any kind,† and states that about three weeks ago he experienced pain in the limbs, which was soon followed

* This case was under the care of my colleague, Mr. Vincent, and I only saw it occasionally: the notes of it were given to me by Mr. Caswall, the dresser, who had the immediate charge of the patient.

† The syphilitic character of the disease, both in the skin and in the eyes, was so clearly marked that the above-mentioned statement could not be believed. In some instances, where patients have made a similar denial, I have found, on examination, unequivocal traces of primary symptoms.

by an eruption. He has taken merely some opening medicine. At the time of admission the whole body was occupied by a brownish red scaly eruption in small patches thinly scattered. Both eyes are inflamed, and the characters of syphilitic iritis are strongly marked in the right. The iris is dull and generally discoloured, its inner circle being of a rusty brown; and a considerable mass of reddish lymph is deposited on the upper and outer part of it. The pupil is irregular. The sclerotica is inflamed, and forms a pink zone round the cornea: the conjunctival vessels also are partially distended. There is pain in the head, more particularly at night, with intolerance of light, and constant flow of tears. Vision is much impaired. The left eye is less inflamed, yet it cannot be exposed to light without pain. The pupil is circular.—(Twelve ounces of blood to be taken from the right temple by cupping; two grains of calomel with one-fourth of a grain of opium every six hours.)

18th. Twenty leeches.

19th. Mouth slightly affected, and inflammation diminished.—(The moistened extract of belladonna to be applied over the brows.)

20th. The lymph diminished, but inflammation still considerable: the belladonna has produced but little effect.—(Twenty leeches to the temples.)

21st. Salivation has taken place. The lymph is diminished, and the inflammation has abated. The pupils are dilated and very irregular in figure.

22nd. The lymph is nearly absorbed, and the iris is regaining its natural appearance. The cornea, which was before very dull, has become quite bright. The eruption is disappearing.

29th. The improvement has been regularly progressive; the iris has regained its natural colour in both eyes; the left pupil is circular, but the right still irregular. Vision is completely restored.—(The calomel and opium to be taken only twice a-day.)

Sept. 20th. Some increased redness in the right eye, probably attributable to the patient having taken meat lately.—(Twelve leeches. A dose of calomel and jalap. Milk diet.)

27th. The eye is completely recovered: the calomel and opium with the belladonna have been continued.

Oct. 16th. The adhesions of the pupil are destroyed; the eyes are quite well; the eruption has disappeared completely, and the patient is discharged.

Case XVII.—*Syphilitic iritis with scaly eruption and ulceration of the fauces.*

Mary Anderson, ætat. 31, was received into St. Bartholomew's on the 3rd of June, 1826. In February, she had sores on the external organs and buboes, which lasted till the end of March. She took no mercury for four weeks, and was then salivated. The eruption, which is the common copper coloured scaly blotch, commenced two months ago, and the ulceration of the throat in two weeks after: the latter has been better and worse. The eye has been inflamed five days. There is a small tubercle of reddish brown lymph on the edge of the pupil, indistinctness of vision, and increased vascularity, particularly of the sclerotica. The treatment ordered for her was, cupping on the temple; an active purgative immediately, and after its operation two grains of calomel with one-third of a grain of opium every six hours.

4th. She refused to be cupped.—(Twelve leeches round the eye)

5th. The leeches repeated: moistened extract of belladonna to be applied on the brow at night.

21st. The mercury has acted on the mouth; the eye is nearly well, and the other symptoms are

much improved.—(Discontinue the calomel, and take pil. hydrarg. gr. v. night and morning.)

26th. Discharged quite well.

CASE XVIII.—*Syphilitic iritis of both eyes, with tuberculo-scaly eruption over the whole body, and ulceration of the tonsil: frequent relapses of inflammation.*

ELIZABETH JARVIS, ætat. 45, came into St. Bartholomew's under my care on the 26th of April, 1827. She represents that her husband has had venereal disease, but that she has had neither sores nor discharge. About nine weeks ago her eyes became inflamed and painful; three weeks afterwards she felt a soreness in the throat; and in three weeks more eruptions appeared, first on the body, and subsequently on the head, neck, and shoulders.

April 26th. Both eyes are affected with iritis, accompanied with too much vascular disturbance and pain to be called chronic, yet not exhibiting the changes of structure which acute inflammation of similar duration would have produced. There is a bright red zone round each cornea, with general fullness of the sclerotic vessels: the conjunctiva on the circumference of the globe is not

much reddened. There is general dimness with a slightly nebulous state of both corneæ, and an additional opake spot on the left, consequent on former variolous inflammation. The condition of the irides and pupils cannot be satisfactorily ascertained through the hazy corneæ: the former appear dull, and the latter irregular: no depositions of lymph can be discerned. Vision is very imperfect; she can just distinguish the hand, when moved against the light. The edges of the lids are red, extensively excoriated, and sore; they become agglutinated during the night. The lids are kept shut, and light is avoided, its access being painful, and causing a flow of tears. The eyes have been constantly more or less painful: the pain has usually been aggravated at night, and taken the form of severe aching over the brows. Both tonsils are enlarged, and the left is superficially ulcerated. There is tubercular eruption over the whole body, but it is particularly abundant, occupying nearly the whole surface, in the head, face, neck, and shoulders. Some of the eruptions on the neck have a scaly appearance. The tubercles, which are numerous and closely arranged, vary in size from that of half a pea to two or three times that magnitude. No medical treatment has been employed; but the patient, who is a servant, has

persevered in her laborious duties, and is now extremely emaciated and feeble.—(Hydrarg. oxymur. gr. 1-8 in decoct. sarsap. comp. three times a-day. Pil. sapon. c. opio. gr. v. at bed time, if necessary. Extract. belladonnæ to the brows. Milk diet, with six ounces of port wine daily.)

29th. She is improved in all respects. The corneæ are clear, so that adhesions of the pupil, with consequent irregularity of figure, can now be seen.

May 18th. She has recovered most rapidly. The unnatural redness of the eye is gone; the corneæ are quite clear, and useful vision is restored.—(The oxymuriate and sarsaparilla discontinued.)

August 16th. Several relapses of inflammation have occurred since the last date, in both eyes, one only being usually affected at a time. For these she has had five or six applications of leeches, and several blisters; and she also resumed and again left off the use of mercury two or three times. She took two grains of calomel with one-third of a grain of opium three times a-day, during great part of June and July; and the mouth was decidedly affected for the three last weeks of the latter month. This medicine was discontinued on the 1st of August. No relapse of inflammation has occurred since that time. The corneæ are somewhat hazy;

but she can read large print without much difficulty. The eruptions are entirely gone. She is discharged, with directions to return to the hospital in case of relapse, which is thought very probable.

She was re-admitted on the 11th of January, 1828, with considerable inflammation and violent pain in the left eye, general haziness of the cornea, and complete loss of vision. The whole body is again covered with copper coloured eruptions, of which some are scaly, others tubercular. She states that the left eye became inflamed a month after leaving the hospital; the inflammation subsided spontaneously and then returned; and such alternations have been repeated in one or the other eye to the present time. The left has been inflamed without intermission for the last six weeks, and the eruptions have existed about the same length of time. No treatment has been adopted; and both symptoms have gradually become worse.

Jan. 21st. Leeches have been twice applied to the left temple. Opening medicine has been administered; she has taken hydrarg. oxymur. gr. 1-3, in decoct. sarsap. comp. twice a-day, and pil. sapon. c. opio gr. v. at bed time. The inflammation of the eye has subsided, and she can distinguish the hand passed against the light. The

iris is motionless; its fibrous texture being confused, and the colour changed to a dark muddy tint. The pupil is irregular, and presents a dull greenish appearance, like glaucoma or incipient cataract. These internal changes, produced by repeated attacks of inflammation, are now rendered visible in consequence of the cornea having become more clear than it was at the time of admission. The eruptions are fading. She complains of pain in the knees, which is aggravated at night.

28th. Considerable inflammation and pain of both eyes, with head-ache, small and frequent pulse, and great feebleness.—(The oxymuriate discontinued; twelve leeches.)

30th. Continued inflammation and pain.—(Leeches and blister.)

Feb. 13th. On the 2nd of this month, when the right eye had become more inflamed, and the left, in which vision was lost, was acutely inflamed, and could not bear the slightest pressure, two grains of calomel with one-third of a grain of opium were ordered to be taken three times a-day. On the following day the patient was so reduced and feeble, that it was necessary to change the milk diet for strong broth, and the day after six ounces of port wine were ordered daily. The mouth is very sore, and she is improved in all respects.

28th. Continued favourable progress.—(Meat diet, with wine.)

April 24th. Slight relapses of inflammation took place, requiring leeches, blisters, and the emetic tartar ointment. The eyes have now remained in a quiet state for the last three or four weeks. She cannot read with the left eye, and can distinguish only large print with the right. Both irides are dull and motionless, being black and irregular at the pupillary margin. The right pupil is of the natural size, but has a green appearance; the left is more irregular and dilated than the right, and presents a considerable greenish opacity. The wine and meat diet have been continued to the present time. She has recovered her health and strength, has felt no pains in the limbs lately, and enjoys good rest and appetite. The eruptions are gone, having left merely slight discolourations. Discharged.

CASE XIX.—*Acute syphilitic iritis of both eyes; with papular eruption, and superficial ulceration of the tonsils.*

ANN CORNWALL, ætat. 19, a young woman of full habit, florid complexion, with much colour, and blue irides, was admitted into St. Bartholo-

mew's under my care on the 1st of June, 1827. She was in the hospital six months ago for gonorrhœa, and says that she had no sores. A month after her admission an eruption appeared on the forehead, shoulders, and extremities. She took decoction of sarsaparilla and pills, and left the hospital quite well after another month. The gonorrhœa returned.

June 1st. There is slight vaginal discharge. An eruption of small papulæ rather thinly scattered over the head, trunk, and extremities. Slight superficial ulceration of the tonsils was discovered, although when questioned, she said that she had no sore throat. A fortnight ago her eyes began to be painful and watering, with increased redness. She had pain in the back of the head, and across the brows, and she suffered most at night. This affection has proceeded uncontrolled, and having occurred in an individual of plethoric constitution, now exhibits syphilitic inflammation of both irides in its most active form. A large prominent mass of bright reddish brown lymph covers about one-third of each iris, the rest of the surface being dull, muddy, and so entirely changed in appearance that the natural colour could hardly be estimated. The inner circle of the iris, in each eye, is partially of a rusty brown colour, and the pupillary margin

is thickened and villous. The pupil is fixed in the middle state. The vessels on the sclerotic coat are distended to the utmost, and the membrane has assumed a bright and deep pink tint round the cornea. The conjunctival vessels are particularly distended: and their scarlet colour forms a strong contrast with the pink of the sclerotic redness. The cornea is slightly hazy, which, with the dull appearance of the iris, gives a very inanimate expression to the eyes. There is increased lachrymal discharge, and slight intolerance of light. When questioned respecting pain, she says that she has none, but it appears, on closer enquiry, that she experiences more or less head-ache, and uneasiness in the eyes and head at night. Vision is very dim: she can distinguish objects, and read large print. Tongue foul, and pulse a little increased in frequency.—(A dose of calomel and jalap immediately. Sixteen ounces of blood from the temples by cupping. Two grains of calomel and one-third of a grain of opium every six hours: the moistened extract of belladonna to the brows night and morning for an hour.

2nd. Considerable pain last night in the head and eyes: no alteration in other respects.—(Leeches to the eyes.)

4th. Mouth a little affected: the lymph is dimi-

nished, and the pain nearly gone.—(Eighteen leeches to the temples.)

5th. Mouth very sore; great improvement in all points.—(Discontinue the mercury.)

6th. Lymph completely absorbed; redness nearly gone; natural colour and appearance of the irides restored; vision perfect. Pupils largely dilated by the belladonna; so that if adhesions had previously existed, which is probable, they must have been absorbed. The throat is recovered, and the eruption much better.—(The calomel and opium every night. Discontinue the belladonna.)

She left the hospital quite well on the 10th of June.

CASE XX.—*Acute syphilitic iritis affecting both eyes in succession, with indurated sore on the prepuce, and papular eruption.*

CHARLES SEXTON, ætat. 19, of fair complexion, with light hair and blue eyes, was admitted into St. Bartholomew's under my care on the 20th of July, 1826. Three months since, and a fortnight after coition, a small sore appeared on the lining of the prepuce: nothing was done, and it gradually grew worse. In a fortnight eruptions broke out on the legs and body. Three weeks previous to ad-

mission he took mercurial pills, which did not affect his mouth: the sore began to heal under their use. Two days ago he was attacked with inflammation of the left eye, the sight of which has gradually failed.

July 21st. The prepuce is slightly thickened, and the sore is on the point of healing. The inguinal glands are somewhat enlarged. The eruption, which seems to have been papular, and to have covered closely the whole body, more especially the limbs, is now in the state of decline. The left eye is affected with acute iritis. There is considerable external redness, the vessels both of the sclerotica and conjunctiva being distended, and easily distinguishable. The cornea is clear. The whole iris, which is naturally blue, has assumed a much darker, dull, and muddy tint, while its pupillary margin and inner circle are of a rusty brown. Although general deposition into the texture of the iris has thus caused a very striking change in its appearance, there is no effusion of lymph in distinct masses. Vision is lost for all useful purposes. There is no head-ache, and but little pain in the eye; occasionally, and particularly in the morning, slight pain is felt in the brow. There is pain in the shin-bones. The pulse is not affected; the tongue and bowels are in their natural state.—

(Cupping on the left temple to 14 oz. Two grains of calomel with 1-3 of a gr. of opium every eight hours. Extract of belladonna to the brow at night.)

22nd. The eye was easier after the cupping. The pills were not taken yesterday. The application of the belladonna this morning has largely dilated the pupil so as to shew that its margin is unadherent. He began the pills to day.

23rd. Slight redness and uneasiness of the right eye, which he attributes to sleeping near an open window.—(Twelve leeches to the left eye.)

25th. The gums are slightly swelled; the inflammation is considerably reduced, and the sight improved.—(Ten leeches to the left eye. Calomel continued.)

27th. Ten leeches were again applied yesterday. The mouth is very sore: he is better in every respect, and can now see to read.—(Eight leeches. The calomel and opium to be taken at night only.)

31st. The eye is not so well this morning.—(Calomel and opium every eight hours.)

Aug. 2nd. Calomel and opium at night only.

5th. Relapse of inflammation, with as much redness and pain as in the first instance.—(Cupping on the left temple to sixteen ounces. Calomel and opium every six hours. Extract of belladonna to the brow at night.)

7th. Mouth very sore, and inflammation much abated.—(Treatment continued.)

9th. The eye is quite well. It is thought advisable to continue the calomel and opium night and morning, on account of the disposition to relapse.

12th. Continue the calomel at night.

15th. The eye is quite well, and vision as perfect as ever. Discharged with a recommendation to attend occasionally.

This patient returned to the hospital on the 16th of September, 1826, with acute iritis of the right eye; the left having remained well, and no other symptoms having occurred. The appearances were exactly similar to those which had been observed in the left eye; considerable pain and intolerance of light were experienced.—(Cupping on the right temple to twelve ounces. A dose of calomel and jalap. Fomentation.)

17th. Twelve leeches. Cal. gr. ii. opii, gr. 1-3, every six hours.

19th. Twelve leeches. Senna mixture immediately, and to be repeated till the bowels are open, then go on with the calomel and opium.

20th. Leeches and medicine repeated.

23rd. Mouth very sore; and eye much relieved.

Instead of the calomel and opium, take pil. hydrarg. gr. v. thrice daily.

27th. Discharged cured.

CASE XXI.—*Syphilitic iritis with papular eruption.*

Mr. T. ætat. 25, a gentleman of good constitution and usually enjoying good health, who came under my care in May, 1827, had two sores on the glans twelve months previously: a cicatrix as large as a sixpence remains from one; the other left no mark: there was no bubo. He took mercurial pills, which caused slight soreness of the mouth. Two months after he had papular eruption and sore throat. A glandular swelling came in the neck on the 18th of January: it suppurated, and broke in the first week of February, and it was not quite closed. Six weeks ago the left eye inflamed: it has been treated on the antiphlogistic plan, and has been better and worse, but is not essentially relieved.

May 12th. The iris, which is naturally blue, is generally discoloured, and has throughout a muddy yellowish tint: the pupil is contracted. The trunks of the sclerotic vessels are distended, and there is a slight pink zone round the cornea. There is nocturnal pain. Vision is dim, but he can

distinguish very large print with difficulty. No other syphilitic symptoms exist at present.—(Cupping on the left temple to fourteen ounces; an active purge; afterwards two grains of calomel, with one-third of a grain of opium every six hours.)

Salivation was soon produced, the eye slowly mending; and, on the 31st of May, the mouth still being considerably affected, all appearance of disease was gone, except contraction of the pupil. He can read the smallest print, but slight dimness of vision remains.

June 4th. The mouth is still sore; he returns to the country.

Sept. 10th. He has continued quite well; the colour of the iris is natural, and vision is perfect.

April, 1829. There has been no return of disease in the eye.

CASE XXII.—*Syphilitic iritis with papular eruption.*

ANN GOULDING, ætat. 19, was in St. Bartholomew's under my care in April, 1828, with profuse gonorrhœal discharge, great inflammation and excoriation of the external organs, perineum, and adjacent parts, with numerous warty excrescences. She was discharged nearly well in five weeks, with directions to attend as an out-patient.

She came back at the end of a fortnight with inflammation of the right eye, and papular eruption of the face and arms.

May 29th. The right eye is affected with iritis: the inflammation, which is not acute, has been coming on gradually for the last week. Vision is more imperfect than the external appearances of disease would lead one to expect.—(Twelve ounces of blood from the right temple by cupping; moistened extract of belladonna to the brow. Three grains of calomel with half a grain of opium every six hours.)

31st. Slight redness in the sclerotica of the left eye, with pain and dimness of vision. The right eye is less inflamed and the sight improves.—(Cupping on the left temple to twelve ounces. Calomel continued.)

June 2nd. Ptyalism has been produced. The eyes have nearly their natural appearance.—(The calomel to be taken at night only.)

9th. The eyes are quite well, and vision is perfect. She continued in the hospital for a fortnight, in consequence of discharge from the vagina, and experienced no relapse of inflammation in the eyes.

CASE XXIII.—*Syphilitic iritis following papular eruption; not yielding to antiphlogistic treatment, but disappearing quickly under the use of mercury.*

Mr. R. about 26 years of age, tall, and of fair complexion, had two sores on the prepuce in February, 1826: they lasted four or five weeks; an inguinal gland swelled at the same time. An eruption, which seems from his description of it to have been papular, appeared in April or May; it covered the trunk and limbs, and lasted three or four weeks. In the month of June he was actively engaged in a contested election, and supposed that he had taken cold: his left eye became inflamed on the 26th of that month. He did nothing for this in Ireland, where it occurred, and arrived in London on the 19th of July, placing himself under the care of a gentleman who directed the loss of blood by cupping twice, and by leeches, with other corresponding measures. As the eye became worse in spite of this treatment, he consulted me on the 31st of July, when I found him labouring under acute iritis. The iris had lost its lustre, and was generally changed in colour; the pupil was fixed in the middle state. Three small portions of red lymph, each being about equal in size to half a pin's head,

were effused close together on the middle of the iris below the pupil. The cornea was surrounded by a broad and vivid zone of redness. Vision was entirely gone; and there was pain in the eye and head. I ordered two grains of calomel with one-third of a grain of opium every four hours. The mouth soon became sore, although the mercury affected the alimentary canal so that it could not be taken very regularly. On the 11th of August, the effused lymph was completely absorbed, the natural colour of the iris was restored, and the zone round the cornea had disappeared, leaving the eye hardly redder than natural. The patient was now able to distinguish letters of the first and second size in an octavo title page. I ordered him to go on with 5 gr. of pil. hydrarg. night and morning. On the 20th, the mouth was no longer sore: all appearances of inflammation were gone, but there was no further improvement of sight. As the mercury had disagreed with him, and it was doubtful whether sight would be recovered by carrying the influence of this remedy on the system to a greater extent, and persevering in it longer, he determined against the experiment, and returned to Ireland.

CASE XXIV.—*Acute syphilitic iritis, with scaly eruption; adhesions of the pupil disappearing under the use of mercury and belladonna.*

JAMES HARVEY, ætat. 33, was in St. Thomas's Hospital in December, 1823, for a sore on the penis and bubo: the former lasted four or five weeks, and got well without his mouth having been made sore. He has since experienced pain in the limbs from time to time, especially for the last four months, during which they have been severe, and aggravated at night so as to prevent rest. He was admitted into the London Ophthalmic Infirmary under my care on the 25th of November, 1824, with acute iritis of the left eye, which had begun eleven days before; with severe pains in the limbs, and a few scaly eruptions on the upper and back part of each forearm. The present symptoms are, intensely bright redness of the whole external surface of the eye; haziness of the cornea; a large mass of reddish brown lymph, formed into three tubercles on its surface, on the upper part of the iris and extending into the pupil; the latter is contracted, transversely oblong, adherent in its whole circumference, and filled by a thin opake layer. The eye is painful, the pain being much worse at

night, and, in conjunction with that of the limbs, preventing rest. Vision is reduced to the mere power of distinguishing light from darkness.—(Sixteen ounces of blood to be taken by cupping from the left temple; a dose of calomel and jalap immediately, and, after its operation, three grains of calomel with one-third of a grain of opium every four hours. Extract of belladonna to the brow at night.)

29th. The mouth is not sore, but the bowels are painfully affected by the mercury. Although the pain is lessened, the disease of the eye is not decidedly checked.—(The calomel and opium to be discontinued. Five grains of pil. hydrarg. twice daily; a drachm of the ung. hydrarg. fort. to be rubbed in on the thighs every night.)

Dec. 7th. The mouth soon became, and is now very sore. The external redness is nearly gone; the mass of lymph is absorbed; the pupillary margin is liberated, except where the lymph had extended into the aperture, and the patient is able to distinguish the letters of common print.—(The mercury to be discontinued; the extract of belladonna to be still applied over the brow, and a solution of it to be dropped into the eye daily.)

15th. Although no mercurial medicine has been taken since the 7th, the influence of the remedy is

still considerable. The smallest print can be read with ease, and vision is perfect, with the exception of very slight dimness.

In a few days he was discharged with the eye perfectly recovered, and then attended for a little time as an out-patient, without suffering any relapse.

CASE XXV.—*Syphilitic iritis, with adhesions of the pupil, which were destroyed by the use of mercury and belladonna.*

LUCY ADAMS, 20 years old, was admitted into St. Bartholomew's for a sore and bubo, in August, 1828, and remained in the hospital a fortnight. She was again received into the same establishment on the 21st of November, having a small sore on each labium, and inflammation of the external tunics of the right eye: she had no sore throat, no eruption, nor any other syphilitic symptom. She had felt the right eye sore since the 18th. The sclerotic was the seat of the affection in this case, and there were, at the time of admission, no appearances to denote inflammation of the iris, so that the opportunity was favourable for trying the simple antiphlogistic plan.—(Cupping on the right temple to twelve ounces. A brisk dose of calomel and jalap, to be followed by a purgative draught; saturnine lotion; milk diet.)

Nov. 24th. Twelve leeches to the eye. Five grains of pil. hydrarg. night and morning, and black wash to the sores, which had been seen to-day for the first time, menstruation having prevented an earlier examination.

26th. In spite of the means hitherto employed, the inflammation of the eye has become gradually worse, and now shews itself as a well marked attack of syphilitic iritis. The iris has lost its brilliancy, and is changed in colour, the pupillary margin is partially adherent, and the aperture is rendered transversely oblong by the adhesions. There is a pink zone round the cornea, pain of the eye, brow, and head, and dimness of sight.—(Cupping on the temple to twelve ounces. Two grains of calomel and one-third of a grain of opium every eight hours. The moistened extract of belladonna to be smeared over the brow night and morning.) The mercury acted quickly and powerfully, immediately arresting the adhesive inflammation of the iris: by the 1st of December the effused lymph was completely absorbed, the iris had regained its natural colour and brilliancy, and the round figure of the pupil was restored. She was discharged on the 10th, the tongue and mouth not being recovered from the mercurial ulcerations.

CASE XXVI.—*Syphilitic iritis with ulceration of the fauces, and inflammation of the periosteum of the tibiæ. Adhesions of the pupil absorbed under the use of mercury and belladonna.*

SARAH LANE, ætat. 19, a healthy girl, who became my patient at St. Bartholomew's on the 24th of November, 1826, was not aware that she had had any primary sore, although she perceived six months ago swelling of the glands in each groin, which went away without any treatment. Three months afterwards a small pimple was perceived on the left cheek; and it gradually spread into a circular ulcer. About a month ago, her throat having become sore, she was twice bled in the arm, and had blisters and leeches to the neck without relief. She now sought further advice, having, in addition to the former complaints, inflammation of the right eye, for which blisters were applied behind the ears without any advantage. Soon after the periosteum of the tibiæ became inflamed. At the present time the tonsils and back of the pharynx present foul white ulcerations, the surrounding membrane being of a bright red. There is a circular sore, as large as a shilling, near the corner of the mouth, with the surface a little excavated, and covered by

a yellow incrustation. The right eye is affected with iritis. The iris is generally discoloured and dull; the pupil adherent at several points and very irregular. There is considerable external redness, pain, and intolerance of light, with copious lachrymal discharge on exposure of the eye. The periosteum of both tibiæ is swelled and painful in the whole length of the bones, with scattered patches of slight redness in the swelled part.—(Twelve leeches to the eye. Extract of belladonna to the brow at night. Two grains of calomel with one-third of a grain of opium every eight hours.)

27th. Mouth affected, and all the symptoms greatly relieved.

Dec. 8th. The mouth has continued sore. The throat is well, and the ulcer of the face healing. The legs are quite well. The iritis has disappeared, leaving the pupil rather drawn towards the root of the nose.—(Mercury discontinued.)

12th. Belladonna was applied to the right eye, with the effect of largely dilating the pupil. The adhesions have completely disappeared, and the aperture is circular. She left the hospital a few days after.

CASE XXVII.—*Syphilitic iritis, treated ineffectually on the antiphlogistic plan, and immediately arrested by the use of mercury.*

ANN HOLLY, aged 21, was admitted into St. Bartholomew's Hospital on the 9th of October, 1828, with gonorrhœa, large ulceration at the lower part of the entrance of the vagina, and a small indurated sore on the right nympha. On the 19th, she complained of pain in the left eye, which was a little redder than usual; six leeches were applied. The inflammation was more considerable the next day, and seated in the sclerotic coat: although there was no decided affection of the iris, I pointed it out to the pupils as being probably the very commencement of syphilitic iritis, and affording a favourable opportunity for trying the antiphlogistic plan. A large cupping was ordered from the temple, with an active purge of calomel and jalap. These means afforded no relief; and on the 22nd, the iris had become dull, and sight was a little dim.—(Twelve leeches round the eye; two grains of calomel with one-third of a grain of opium every six hours.) No relief was experienced from the leeches; but the mercury acted on the system in forty-eight hours, and the affection was imme-

diately checked. All appearance of inflammation had gone in four or five days, and she was discharged well on the 5th of November.

CASE XXVIII.—*Syphilitic iritis of both eyes, arrested by antiphlogistic treatment and mercury; relapse of the complaint cured by antiphlogistic means alone.*

JAMES GRANT, ætat. 28, a robust healthy man, accustomed to hard work and good living, was admitted into St. Bartholomew's on the 28th of October, 1827. Six months ago he had gonorrhœa and a sore on the lining of the foreskin: he took pills, which affected his mouth, and in three or four weeks he considered himself perfectly cured. In two months he had severe pains in the limbs, which subsided in a fortnight without medicine, when small red pimples appeared on the trunk, face, and limbs. Eruptions still remain on the legs, but these, he says, are very different from the former ones: they are a kind of pimples intermixed with patches of coppery discolouration. Eight days ago he perceived dimness of the right eye, which on the following day was painful, especially on exposure to light. Four days after the left eye inflamed. He now obtained medical advice, and

was directed to apply eight leeches daily, to use a lotion, and to take a dose of salts every morning. Two days ago twelve ounces of blood were taken from the arm. It could not be expected that such inefficient treatment would arrest active inflammation in the case of a powerful man like this patient; and the disease has accordingly proceeded uncontrolled. Acute inflammation exists in both eyes. A mass of reddish brown lymph covers one-fourth of the right iris, extending from the ciliary beyond the pupillary margin. The left iris is discoloured from general deposition of lymph throughout its texture. There is severe pain in the right eye, preventing rest at night. Both pupils are contracted. Vision is nearly lost in the right eye, and very imperfect in the left. He was largely bled three times soon after his admission, and had four dozen leeches applied round the eyes. The bowels were freely evacuated by active purgatives, and he then took two grains of calomel with one-third of a grain of opium every eight hours. Belladonna was used to the brow. The inflammation and pain were greatly relieved by the first bleeding. Salivation ensued in three days: the lymph began to diminish, and the colour of the irides to improve. On the fourth day he could see with the left eye as perfectly as ever: the mouth

being very sore, the calomel was discontinued. On the fifth day the mass of lymph was nearly removed from the right eye.

Nov. 7th. The mouth has continued very sore; the improvement has proceeded uninterruptedly, and he has now good vision of both eyes. The irides have recovered their natural colour. Slight adhesions of the pupil exist on both sides. He left the hospital this day, although it could not be deemed prudent for him to return to his ordinary habits, and to the usual exertion of the organs, so soon after the very violent inflammation, with which they had been affected.

On the 13th of November he was readmitted with a serious relapse of inflammation in both eyes. The right was most affected: the pupil and anterior chamber were cloudy, the iris had lost its natural colour and brilliancy, and the pupillary margin was adherent throughout. The sight of the left eye was considerably impaired.

Mr. Lloyd, who saw the patient at this time, directed venesection to sixteen ounces, active aperients, and fomentation with belladonna to the part. This treatment gave immediate relief. On the 14th vision was clearer, and the patient free from pain. On the 15th he could read the smallest print with the left eye; and on the 26th he was

dismissed from the hospital, the sight of the right eye being greatly improved, but not completely restored. Adhesions of the pupil existed in both eyes; and this opening assumed a very irregular figure in the right eye, under the influence of belladonna.

Case XXIX.—*Syphilitic iritis, with other syphilitic affections in an infant.*

Jane Mudie, ætat. 26, and her female child, 16 months old, were admitted into St. Bartholomew's under my care, on the 31st of March, 1827. The mother had a discharge from the vagina with ardor urinæ three months before the birth of this child. The discharge continued till about three months ago, when she noticed sores on the external organs of generation. The labia, perineum, and verge of the anus are now occupied by elevated, warty, and ulcerated excrescences.

The infant, which was large and healthy at birth, had purulent inflammation of both eyes on the third day, and was taken to the London Ophthalmic Infirmary, where it soon recovered. At the age of five months a pustular eruption appeared on the neck, which soon went away. A discharge

was then observed from the vagina; the labia swelled, and were excoriated; as this got better, flat warty excrescences appeared on the perineum and round the anus. Their surface is now ulcerated as in the mother.—(For the mother; pil. hydrarg. gr. v. night and morning: black wash. For the child; hydrarg. c. creta, gr. iv. twice daily; frequent ablution of the affected parts.) The symptoms, both of the mother and child, yielded to this treatment, and they were discharged well in about three weeks.

They were readmitted on the 21st of May. The mother has now redness and swelling of the tongue at its apex, with an ulcerated fissure in the middle; and a superficial sore with yellowish surface, on the mucous membrane of the lower lip. These sores have existed for a fortnight: there is no return of disease about the external organs.—(Hydrarg. oxymur. gr. 3-8, in decoct. sarsap. comp. lb. i. daily.) The child has excoriations and ulcerations round the anus, which reappeared in a week after leaving the hospital. She has also, in the left eye, iritis in a mild form, which the mother ascribes to a cold caught by having the head wetted. It began three days ago. The iris has lost its brilliancy, and assumed a dark tint; the

pupil is a little contracted; there is some redness of the sclerotica, and of the upper lid, and slight intolerance of light.—(Hydrarg. c. creta, gr. v. night and morning.)

24th. A small red and painful spot has appeared on the side of the tongue, near its basis, in the mother. The child's eye is worse: (three leeches.) The mild mercurial treatment above described was continued, both for the mother and child, till the 4th of June, when they were discharged, all symptoms having been completely removed. They were seen at the hospital some time afterwards, quite well.

CHAPTER VI.

SYPHILITIC ULCERATION OF THE EYELIDS.

Syphilitic eruptions of the palpebræ.

As integument and mucous membrane are the most frequent seats of syphilitic disease, and as both these structures enter into the composition of the eyelids, we might naturally expect to find those parts often involved in such affections. Syphilitic eruptions, particularly the scaly and the tubercular, frequently appear on the external surface and on the ciliary margins of the lids; and the latter are almost always red, excoriated, and sore, in that form of syphilis, which is imparted to the infant by a diseased mother or nurse, and which is almost confined to the skin.

The mucous lining of the palpebræ sometimes participates in the syphilitic eruptions, which affect the surface generally; but this does not happen so often as we might have been led to expect from observing the correspondence in diseased action

between the conjunctiva and the integuments. In No. I., of the cases of syphilitic iritis, where there was papular eruption, papulæ were observed on the internal surface of the eyelids. A gentleman was under my care some years ago with general papular eruption, following chancre, the pimples being numerous, large, bright red, and proceeding to suppuration on their summits, then drying up and leaving very conspicuous red marks. There was great feverishness with pain in the side. The eruption extended to the mucous lining of the palpebræ, in which there were several yellow pustules about as large as pins' heads, with some uneasiness, and general swelling of the lids. They required no particular treatment. The eruption, which occurred in March, lasted six weeks. The marks of the papulæ were still very visible in the face in August; at which time some scaly eruptions appeared on the legs, with considerable inflammation. The left upper lid was still red, and rather swelled, the conjunctival lining red and thickened, and the marks of the former papulæ very evident. No other means were employed in this case except active antiphlogistic treatment, including two venesections. This gentleman has continued well to the present time.

In a patient who was twice in St. Bartholomew's

Hospital under my care, first for primary phagedenic ulceration of the labia and one nympha, and subsequently for tubercular eruption chiefly affecting the face, and node of the tibia, the upper eyelid of one eye became swelled on the second occasion. It is stated in notes which I have of the case, that "an eruption of small pustules was observed upon the lining of the upper eyelid, which was swollen." I cannot describe the appearances exactly, not recollecting the particulars of the case, which occurred in 1825 and 1826. She took calomel and opium freely, under which all her symptoms quickly disappeared, and she was discharged cured.

Syphilitic ulceration of the eyelids.

The object of this chapter, however, is to describe syphilitic ulceration of the eyelids, which, although it is not of very rare occurrence, is not particularly noticed in any of the works on syphilis with which I am acquainted. As it sometimes proceeds to the destruction of the lid, it is of consequence that the character, progress, and treatment of the affection should be understood.

My attention was first attracted to the subject many years ago, by a case which came under my care in St. Bartholomew's Hospital, when I was in

attendance during the absence of Sir LUDFORD HARVEY. A stout red-faced woman, of full habit, who had been many years on the town, was admitted on account of an ulcer, which had nearly destroyed the lower eyelid. The surface was greyish with bloody points, and the edge towards the cheek livid and sloughy; the discharge ichorous. The neighbouring integument to a considerable distance was highly inflamed, and the side of the face was generally swelled. The sore and the surrounding parts were most acutely painful, so as entirely to prevent rest. No eruption or ulceration existed in any other part of the body, nor was there any other local affection. Having neither heard nor read of such cases, I did not entertain any suspicion of the disease being venereal, and attempted to arrest its progress by leeches, fomentation, poultice, and opium. During the employment of these measures, which were altogether ineffectual, the destruction of the lid was completed. I now had recourse to the free administration of calomel with opium, which quickly affected the mouth. The pain immediately ceased, the inflammation of the ulcer and of the surrounding parts was arrested: in two or three days the sore acquired a healthy surface, and cicatrization soon followed. Although this patient

had no other venereal disease at the time, and said that she had not recently been affected with syphilis, I entertain no doubt at present that the ulceration of the eyelid was syphilitic.

Soon afterwards I had under my care, at the Eye Infirmary, in Charterhouse Square, a youth under twenty years of age, in whom a chronic ulceration had slowly destroyed about one half of one lower eyelid, the other being affected on its margin by a smaller superficial ulceration of similar character. In this case there was an excavated ulcer with tawny surface, and no surrounding inflammation, in each tonsil. The characters of the disease were here so strongly marked, that I could place no credit in the representation of the patient that he had never had venereal disease. The compound decoction of sarsaparilla with the oxymuriate of mercury was administered in this case. The ulcerations of the throat soon disappeared; but those of the eyelids were more obstinate and did not yield till the mouth was affected, when they slowly cicatrized. A relapse of the palpebral affection occurred in this patient, who was a tailor; the use of mercury was again required, and proved effectual.

In the last few years I have met with several instances of syphilitic ulceration affecting the eye-

lids, and have thus learned that the character and progress of such sores are various in this as in other parts of the body.

The ulcer, commencing on the ciliary margin, where it is generally described as beginning with a small hardness supposed to be a stye, may occupy the whole thickness of the lid, involving all its textures. The two instances just related, and Cases II., III., and IV., exemplify this. It may have the same origin, and be confined to the external surface of the lid, as in Case I., or, it may arise on the mucous surface, and never extend beyond that. This is seen in Case V.: other similar instances have come under my observation. In a patient, who had syphilitic ulcers in several parts of the body, with periosteal swellings, I observed that the left upper eyelid was red and swollen, and proceeded to evert it, when I discovered on the inner surface a sore as large as a sixpence, with a tawny surface: it did not reach the edge of the lid. I have also seen several smaller sores at the same time in the mucous lining of both upper lids.

The ulceration is sometimes acute, attended with inflammation and great pain; and it rapidly destroys the affected part. In Case II., where the eyelids were twice affected, two-thirds of the lower

lid were destroyed on the second occasion in about five days. Case IV., and the case related at page 311, are other examples of acute ulceration. On the contrary, in Case I., there was but little inflammation or pain, and, although the disease had existed for two months before treatment was begun, the cure was accomplished almost without loss of substance. The characters of the sore will of course be very different in the two instances; as may be seen in the cases just referred to. The acute ulceration is of the phagedenic character, with red margin, sharp edge, foul unequal surface, on which bloody points are seen, and severe pain. In the chronic, there is swelling and some hardness of the basis of the sore, with expansion of the cutaneous texture instead of loss of substance, and little or no pain.

Ulceration of the eyelid generally occurs in conjunction with other syphilitic symptoms, such as ulcers in other parts of the body, and swelling of the bones or periosteum.* In Case I., the affection of the lid was the only secondary symptom for about two months, at the end of which time scaly eruption appeared.

In the case related at page 311, and in Case IV.,

* Cases II. III. and V.

the eyelid was the only part affected. I was consulted some years ago by a gentleman, of whose case I did not make any notes. He had a large ulcer, with dirty whitish surface, on the lining of the upper eyelid. The character of the sore, and the circumstance of his being otherwise in excellent health, made me conclude that it was venereal, though he had no other symptom, and stated that he had not been affected with syphilis for a long time—if my memory is correct, not for three or four years. The sore healed under the use of mercury and sarsaparilla.

In the case related at page 311, and in CASE III. the lower eyelid was entirely destroyed by syphilitic ulceration; the destruction of the part was nearly complete in CASE II. In all these instances there was no conspicuous deformity, and the patient experienced no inconvenience after cicatrization was completed. The loss could not be discovered without close inspection, and when the eye was shut, the descent of the upper lid covered the globe.

No other ulcerative affection of the palpebræ can be confounded with that now described by any person who pays even slight attention to the character and progress of the disease. The ulcers called cancerous begin, at least in the great majority of instances, in the integument, and are for a

long time confined to it, not reaching the ciliary margin or mucous surface until the disease has made some progress. The affection has two stages, the tubercular and the ulcerative. It begins with the formation of small hard and scarcely discoloured tubercles in the skin; ulceration does not take place till these have existed many months or even some years; it proceeds slowly, the edge of the ulcer being hard, and tuberculated, and several years will elapse without any great progress. The ulcer is superficial, producing in small quantity a thin discharge which forms an adherent scale on the surface. These cancerous ulcerations do not occur until the middle period of life, or after it. Besides the difference of age, and the entirely different origin, development, character, and progress of syphilitic ulceration, the history of the case, and the concomitant existence of other syphilitic symptoms would remove all doubt respecting the nature of the affection.

Treatment.—I have found the free use of mercury to be the quickest and most effectual mode of arresting and curing the disease. This remedy was employed with the best effect in all the cases which are appended to these remarks. As soon as its influence on the system was produced, the sores

lost their syphilitic character and then quickly healed. Having found the desired purpose so completely answered by this plan of treatment, I have not been willing to make the experiment, which has been tried with other syphilitic ulcerations, of leaving them to their own progress, or trusting to sarsaparilla and other remedies. The loss of substance which would occur under this mode of proceeding, might probably be attended with serious deformity.

CASES OF
SYPHILITIC ULCERATION OF THE EYELIDS.

CASE I.—*Indurated sore of the prepuce, with phymosis; scaly eruption; large ulcer of the upper eyelid.*

GEORGE VAUX, aged 43, a copper-plate printer, of full habit, and a free liver, came to me in August, 1829, for my opinion respecting a sore on his eyelid. Judging from its appearance that it must be syphilitic, I made the inquiries which such an opinion would suggest. He stated in reply that he had no venereal disease, and had had none; but that he had a gleet. I proceeded to examine and question him minutely, when I ascertained the exact state of his complaints, and the following history of them. In the month of March he had contracted gonorrhœa, and had since taken the balsam of copaiba, at various times, with partial relief. A sore appeared on the lining of the prepuce, about a fortnight after the discharge; but it was attended with so little inconvenience that he disregarded it: phymosis having come on,

he lost sight of the sore, which he supposed to have been healed, until I discovered it. Two months ago, the discharge from the urethra recurring at intervals, a hard pimple appeared on the margin of the left eyelid, amongst the eyelashes: he had had one there before, which was lanced, and soon got well; he therefore thought lightly of this: however it soon broke, and became covered with a brown scab, which occasionally fell off and formed again. Finding that the sore place grew larger, and began to interfere with the motions of the lid, he applied to a surgeon, who treated it for some time as a common sore, without any benefit. I recommended that he should go into St. Bartholomew's Hospital, and he was accordingly admitted under my care.

August 10th. There is partial phymosis, with copious yellow discharge: a hard lump is felt, on taking the prepuce between the finger and thumb; by forcibly retracting the prepuce, it appears that an ulcer occupies the surface of this induration. The left upper eyelid is thickened and elongated, and can be elevated only partially. The whole of its external surface is covered by a circular sore, nearly an inch in diameter, encroaching on the ciliary margin, so as to have destroyed a part of the eyelashes. The sore is considerably raised,

the base and margin being thickened, and rather indurated; there is no excavation of the surface, which is covered by a dry, thin, brownish scab. The sore itself, as far as it can be seen, and the surrounding skin, are of a reddish brown colour: the eye is not inflamed, nor is sight injured, except by the mechanical impediment of the enlarged lid; there is no pain in the sore, although it has sometimes smarted so as to prevent sleep. On the forehead there are several superficial marks, consisting of coppery discolourations, about one-third of an inch in diameter; they had not been noticed by the patient. A similar eruption, shewing a slightly scaly appearance in a few places, covers the neck, back, chest, shoulders, and arms. There are no pains in the bones or joints.—(A bread poultice to the eyelid. Opening medicines.)

11th. The scab has come off, and left an elevated sore with a clean surface.—(Poultice continued; two grains of calomel, with one-third of a grain of opium every six hours. Black wash to be injected within the prepuce.)

19th. Salivation has occurred; the gums are inflamed and tender. The hardness of the prepuce is diminished; the eruptions are faded, particularly in the face. The ulcer of the eyelid is healthy, and secretes good pus: its edge is cicatrizing.—

(The calomel and opium to be taken every eight hours.)

24th. There is considerable ptyalism, with ulceration and great tenderness of the gums and mouth. The sore of the prepuce has healed, and there is no discharge from its orifice. The eyelid is less swelled, and the ulcer is cicatrizing rapidly, except at its inferior margin, where it has reached to the mucous membrane. The eruption has disappeared.—(The calomel and opium to be taken at night only.)

26th. Calomel discontinued; alum gargle for the mouth.

Sept. 9th. The sore, which was nearly cicatrized at the last date, has begun to spread again. As the ptyalism subsided, excoriation of the new cicatrix appeared at its upper and outer part, and is now extending, the healing process having been arrested, and the lid again begun to swell. The poultice, which had been discontinued on the 4th, was resumed on the 7th.—(The calomel and opium to be taken every night.)

18th. The calomel and opium were ordered twice a-day on the 11th, and every eight hours on the 14th. The disease of the eyelid had so far returned, that it was necessary again to bring on salivation; the amendment of the sore has kept

pace exactly with the increasing affection of the mouth, and it is now nearly healed. Cicatrization did not begin on that edge of the sore which had extended to the mucous membrane of the lid: the healing was accomplished by the gradual extension of new skin from the cutaneous margin of the ulcer.

On the 21st, the mercury was ordered twice a-day; on the 23rd it was finally discontinued; and the patient left the hospital on the 28th of September, perfectly well, excepting that the mouth was still sore. He took about three drachms of calomel in the hospital, and was twice severely salivated.

About the middle of October the mouth had recovered; the eyelid was still larger than the other, and the cicatrix rather sore on exposure to cold. The phymosis remained, but without discharge or inconvenience.

May, 1830. There has been no return of disease. The thickening of the lid has disappeared entirely, and the integument is quite natural. There is no ectropium, and the only traces of the former extensive ulceration are a little deficiency in the ciliary margin, and corresponding want of eyelashes. The health has been excellent since he left the hospital, and it continues so.

I saw this patient again towards the end of June, when he had experienced a return of syphilitic disease. There were, on the right side of the scrotum, five or six brownish red, rather soft, tubercular elevations of the integuments, with smooth surface, and about as large as a sixpence; they had existed some weeks, and had begun when he saw me last, though he thought them of no consequence, and therefore did not mention them. There was superficial ulceration of the fauces. His hearing was imperfect on the left side, and he could hardly hear at all on the right. The eyelid continues quite well.—(Opening medicine; five grains of blue pill three times a-day.)

CASE II.—*Syphilitic ulceration of the external canthus, and subsequently of the lower eyelid, with other syphilitic symptoms.*

HENRY EVANS, 30 years of age, admitted into St. Bartholomew's Hospital under my care, on the 10th of December, 1829, has led an irregular life, and been several times affected with the venereal disease, for which he has used mercury with advantage. He has not contracted any fresh infection for the last two years. He has now ulceration of the outer canthus of the right eye, a few super-

ficial incrusted ulcers on the trunk and extremities, painful subcutaneous induration of the calf of one leg, supposed to be seated in the fascia, and nodes of both ulnæ near the elbows. These symptoms have existed for a month, excepting the nodes, which appeared eight months ago, and have now got into a quiet state. A gradual aggravation of the ulcer of the canthus, which began in the form of a pustule like the other sores, induced him to seek relief at the hospital, no remedies having been resorted to previously to his admission.—(Opening medicine; sarsaparilla. The sore of the eyelids to be washed with a solution of argenti nitras (gr. vi. ad ℥i.) and then dressed with red precipitate ointment.)

14th. The ulcer very painful and increasing.—(Treatment continued. Twelve leeches to the calf of the leg.)

16th. I saw the patient for the first time, and found him with a considerable ulcer, which had destroyed the external commissure of the lids, so as to extend the palpebral fissure about three quarters of an inch. It was extremely painful, with an inflamed margin, sharp edge, whitish surface slightly streaked with blood, and thin discharge. The surface was excavated in the middle, and the ulceration extended along both palpebræ, destroy-

ing the whole thickness of the lids as it proceeded. The neighbouring portion of the conjunctiva oculi was bright red and swollen, and the eye generally in much pain.—(The stimulating applications and the sarsaparilla to be discontinued; a soft bread poultice to the sore. Two grains of calomel with one-third of a grain of opium every six hours.)

21st. Mouth slightly affected by the mercury; decided improvement in the sore, which is less painful, and does not increase. The induration of the calf is very painful, and seems to have partially suppurated. Some of the incrustations on the leg have fallen off, leaving superficial sores.—(The calomel and opium, and the bread poultice to be continued. A lotion of the hydrarg. oxymur. in aqua calcis to the other sores. Leeches repeated to the calf.)

24th. Salivation is produced. The ulcer of the canthus is healing rapidly.—(Leave off the calomel and the poultice; continue the lotion to the ulcers of the legs.)

26th. The ulcer of the lids is cicatrized; the other complaints are proceeding favourably.

Jan. 4th. 1830. The effects of the mercury have passed off. The cicatrix of the palpebral sore has begun to ulcerate again at one point. The induration of the leg remains, but it is no longer painful

—(Bread poultice to the eye. Pil. hydrarg. gr. v. night and morning; two scruples of strong mercurial ointment to be rubbed on the induration daily.)

18th. The means last prescribed have been continued; the mouth is not affected by the mercury; the sore of the canthus has attained one-half of its former size.—(To resume the calomel and opium, and take them every four hours.)

23rd. When salivation had been produced, the sore quickly healed, and he took no more mercury. The induration of the leg disappeared; the ulcers healed; the nodes diminished; and he left the hospital on the 2nd of February.

He was readmitted on the 12th of February, with a red, hardish, and painful swelling of the lower eyelid, on the middle of which there was a small, flat, brownish, and firmly adherent scab. The conjunctiva lining the lid was much inflamed, and that of the globe in some degree.—(Twelve leeches round the eye; bread poultice; opening medicine.)

13th. No improvement.—(Calomel and opium every six hours.)

15th. The scab has fallen off; there is now an excavated sore, with whitish phagedenic surface, sharp edge, indurated and inflamed basis, and great

pain. The surface of the eye is much inflamed, and very painful. The mercury has had no effect on the mouth : let it be taken every four hours.

17th. The system still resists the influence of the remedy, and the ulceration extends. The sore now occupies the whole depth of the lower lid, and three-quarters of its length, being considerably excavated in the centre.—(The treatment continued.)

19th. Profuse salivation has occurred. The sore is less painful, and has ceased to spread; its circumference is less inflamed.—(Discontinue the calomel and opium : black wash to the ulcer instead of poultice.)

25th. The ulcer is diminished and cicatrizing.—(Discontinue the application.)

28th. The mouth has nearly recovered from the effects of the mercury. The ulcer is again rather painful, and its margin is inflamed.—(Let the calomel and opium be again taken night and morning, so as to keep up salivation until after the cicatrization shall be completed.)

March 2nd. The ulcer is healed. The calomel and opium were continued night and morning till the 15th, when he was discharged from the hospital cured. No deformity remained, although three-fourths of the eyelid had been destroyed by

the ulcer. The nodes of the ulnæ completely disappeared under the mercurial course. He was seen at the hospital a month afterwards, without any return of syphilitic affection, and in excellent health.

He again presented himself at the hospital in the month of June, complaining of slight uneasiness in the throat and limbs. The eyelid had continued perfectly well.

CASE III.—*Ulcer of the forehead, with exposure of the os frontis; ulceration of the left lower eyelid, pharynx, and lip; scaly eruption of the face.*

LYDIA PAGE, a girl of the town, 19 years old, became my patient in St. Bartholomew's Hospital on the 19th of April, 1827. She had been repeatedly affected with primary symptoms, and had been in the hospital eleven weeks before with gonorrhœa and ulcerated bubo in each groin. Five months ago she had a small knot on the forehead, to which, as it was neither painful nor conspicuous, she paid little attention. She had at the same time ulceration of the throat, and took mercurial medicines by which the mouth was affected for three weeks. The throat recovered, but the knot on the forehead remained. She continued well till the 1st of March, when she caught cold by

getting wet in the feet; she was then laid up for three weeks with pains in the limbs, and swelling of the knee, for which leeches and other means were used. From this time the swelling on the forehead, which had been indolent, became larger, red, and painful, so that she poulticed it. It broke four days ago and discharged a considerable quantity of matter.

April 19th. The middle of the forehead is occupied by an ulcer of an inch and a half in diameter, with an inflamed margin, and sloughy surface. In its middle the os frontis is bare to the extent of half-a-crown. The lower eyelid of the left eye has been nearly destroyed by a foul syphilitic ulcer, which occupies its whole length, and is still spreading. This commenced about a week after her leaving the hospital in a small inflamed point resembling a stye, which soon ulcerated. There is a small superficial ulcer on the ciliary margin of the upper lid. A small ulcer is seen at the back of the pharynx, and a few reddish scaly spots on the face.—(Aperient medicine. A pint of the compound decoction of sarsaparilla, with two drachms of the extract, and three-eighths of a grain of the oxymuriate of mercury daily. Poultice to the forehead. Red precipitate ointment on thin rag to the ulcer of the eyelid.)

27th. A small circular sore with whitish surface appeared three days ago on the mucous membrane of the upper lip. She has had pain in the shoulder, and the spine of the scapula is very tender. She was feverish, and lost her appetite for one day. At present the ulcer of the forehead is quite healthy, granulations having sprung up, and covered much of the bone. The sore of the eyelid is nearly healed.

30th. She has severe pains in the limbs, and rests badly. The sores are healing.—(The medicines continued; five grains of pil. sapon. c. opio every night.)

May 12th. The ulceration of the eyelid is completely cicatrized; but, although the lid has been destroyed, the loss is hardly observable, except on close inspection. When the eyes are closed, the upper lid covers the ball completely. The exposed portion of the frontal bone is quite covered by granulations, and the sore is contracting rapidly. All the other symptoms are gone, she rests well, has a quiet pulse, clean tongue, and good appetite, and is improving in flesh and appearance.—(Discontinue medicine.)

June 1st. Discharged cured; the ulcer of the forehead having closed without any exfoliation.

CASE IV.—*Phagedenic ulcer of the upper eyelid, without any other syphilitic symptom, cured by the free use of mercury.*

LOUISA WILLIAMS, a fine healthy young woman, 25 years of age, was admitted into St. Bartholomew's Hospital, under the care of Mr. EARLE, on the 14th of May, 1829. A phagedenic ulcer occupied the whole surface of the right upper eyelid, and extended to both canthi: it had destroyed the external canthus, and the ciliary margin of the lid, and was extending along the conjunctival lining as well as externally. The surface of the ulcer was covered with a dry, brownish scab; the margin was inflamed, and acute pain was felt in the lid and over the brow. The patient asserted that she had never been affected with syphilis in any form, and referred the origin of the disease to a cold taken two weeks before, and followed by a stye, which broke, and gradually spread into a sore. When the scab had been removed by fomentation and poultice, lunar caustic was freely applied to the whole surface.

17th. The character of the sore is not changed; it continues very painful.—(Black wash, hydrarg.

oxymur. gr. 1-8 in essent. sarsaparillæ, ℥ ss. thrice daily.

21st. The ulceration is spreading; the surface is ash-coloured, particularly at the margin, with an admixture of bloody points and streaks.—(Undiluted nitric acid to the parts last mentioned.)

I saw this patient on the 23rd, with Mr. Earle, and found a large phagedenic ulcer of the lid, with inflamed margin, considerable and general inflammation of the conjunctiva, and great pain. I considered the disease decidedly syphilitic, and recommended that mercury should be employed so as to act speedily on the constitution.—(Two grains of calomel with one-third of a grain of opium every four hours.)

26th. The mouth is sore; the character of the ulcer is changed, and its progress is stopped.

31st. Cicatrization has proceeded very rapidly, and the patient leaves the hospital to-day, quite well.

Case V.—*Ulceration of the eyelids, and other syphilitic affections in two children.*

Sarah Coster, who is now thirty-six, contracted disease about ten years ago from her

husband, who had had eruptions and other venereal symptoms. She discovered her complaint only a few days before the birth of her first child: she then had discharge from the vagina, excessive scalding in making water, excoriations and buboes; subsequently she had sore throat. She was cured of these symptoms in about seven months, under the full influence of mercury, and remained well until twelve months afterwards, when a sore broke out on the right thigh. She was again salivated, and got well in three or four months. From that time till seven or eight months since she has remained free from disease, excepting a discharge from the vagina, which has continued more or less since her marriage. About the period above mentioned, the integuments over the head of the right tibia became inflamed and painful, and several small ulcers soon after formed on the part. For these she was received into the hospital, under the care of Mr. Earle, in July, 1827, and after a few weeks discharged cured. In a fortnight the complaint broke out again, and gradually got worse, till she was admitted under my care on the 24th of August. She has now phagedenic ulcerations of syphilitic character on the upper and front part of the leg, with great pain in the whole length of the tibia, more particularly at night. She has no other

constitutional symptom.—(Pil. hydrarg. g. v. night and morning. The lotion of lime water with oxymuriate of mercury to the sores, and afterwards bread poultice.) This treatment was continued to the 3rd of September, when she left the hospital of her own accord, the leg being very nearly but not quite healed.

The Children of S. Coster.

Her first child was a fine healthy boy at birth; a few days after he had a severe attack of purulent ophthalmia in both eyes, which was cured in three weeks at the London Ophthalmic Infirmary; and he has continued healthy.

Her child, Sarah Coster, aged six, was born healthy; a fortnight afterwards small watery pimples broke out about the parts of generation, which were very red and sore. Patches of discolouration appeared about the face and head; and the skin generally was rough: several of the nails separated, leaving a scabby surface. The nostrils were blocked up with a thick yellowish matter: the eyelids became inflamed, and were agglutinated during sleep. She took grey powders (hydrarg. c. creta?) for several months, which caused soreness of the mouth; and she was occasionally better and worse, having never been entirely free from disease since

the first attack. She was in the hospital in July, under the care of Mr. Earle, with sores on the lips, cheek, and eyelids: the latter only remained sore when she went out with her mother.

Her child, Henry Coster, now 4 years old, was born healthy, and continued so until eight months ago, when the glands of the neck became enlarged and painful. He also had an attack of inflammation of the eyes, attended with great intolerance of light. He was relieved from these complaints in a few weeks under medical care, and enjoyed good health for the following two months, at the end of which time an eruption appeared over the whole body, with excoriation and foul ulcerations about the anus and external parts of generation. These symptoms disappeared under the use of mild mercurial powders, when he was in the hospital with his mother in July. The eyes became inflamed soon after he left the hospital, and a few spots appeared on different parts of the body.

He came into the hospital with his mother on the 24th of August. The right upper eyelid is now inflamed and swollen: upon everting it, the mucous membrane is found to be occupied, in the whole extent of the tarsus, by a syphilitic ulcer with elevated edge and foul surface. The left upper eyelid is also inflamed and slightly swollen,

but its mucous surface is not ulcerated. There are a few discolourations and scaly eruptions on the head and trunk.—(Hydrarg. c. creta gr. v. every night. Tepid ablution of the lids.)

When the mother left the hospital in September, the child accompanied her perfectly cured.

On the 4th of October, Sarah Coster was readmitted under my care, with two of her children, Sarah and Henry.

The complaint of the leg gradually grew worse after she left the hospital, and now presents the same syphilitic character and unhealthy appearance as on her former admission. She took small doses of oxymuriate of mercury in the compound decoction of sarsaparilla, and was well enough to be discharged on the 26th of November.

The child Sarah Coster has small superficial syphilitic ulcerations about the mouth, and on the mucous lining of the lips, and two rather larger sores on the cheek near the lobulus of the ear. The eyelids are red and slightly ulcerated on their margins.—Mild aperient medicine occasionally; ablution and simple applications for the local complaints.)

Henry Coster has inflamed and slightly ulcerated eyelids, with a small ulcer at the back of the neck.—(Hydrarg. c. creta gr. v. daily.) This

medicine slightly affected the mouth in eight or ten days, when the sores of the eyelids healed.

Nov. 19. Both the boy and girl have had a large pustule form on the end of the right fore-finger, attended with considerable inflammation and pain. They left the hospital with the mother on the 26th November.

March, 1828. I saw the mother at the hospital quite well: she reported that the two children were free from sores and eruption, and in good health.

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